DRAFT—Cultural Resources Inventory for the Chambers Creek Canyon Trail-Kobayashi Park Project Phase 3, Cities of University Place and Lakewood, Pierce County, Washington

Submitted to:
Pierce County Parks & Recreation Services

Submitted by:
Historical Research Associates, Inc.
Matthew Warren, PhD

Seattle, Washington
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This report was prepared by HRA Project Archaeologist Matthew Warren, PhD, who meets the Secretary of the Interior's professional qualifications standards for archaeology. This report is intended for the exclusive use of the Client and its representatives. It contains professional conclusions and recommendations concerning the potential for project-related impacts to archaeological resources based on the results of HRA's investigation. It should not be considered to constitute project clearance with regard to the treatment of cultural resources or permission to proceed with the project described in lieu of review by the appropriate reviewing or permitting agency. This report should be submitted to the appropriate state and local review agencies for their comments prior to the commencement of the project.

Executive Summary

Pierce County Parks & Recreation Services (Parks), the City of University Place, and the City of Lakewood are co-lead agencies for the Chambers Creek Properties and the associated Master Site Plan, as stipulated in the Joint Procedural Agreement executed on June 8, 2000. For Phase 3 of the Chambers Creek Canyon Trail-Kobayashi Park Project (Project), the co-lead agencies intend to construct a pedestrian bridge across Chambers Creek to connect trails on both sides of the canyon. Additionally, sections of a proposed pedestrian trail will be constructed between Kobayashi Park and the Chambers Creek estuary as part of the project. This work will include the construction of a 140-foot pedestrian bridge, a small footbridge across Peach Creek, 1,970 linear feet of boardwalk, and a trailhead on the Lakewood side of Chambers Creek Canyon.

The Project is being funded by the Washington State Recreation and Conservation Office (RCO). Since the funding is being drawn from state capital funds, compliance with Governor's Executive Order 05-05 (EO 05-05) is required. Other applicable state regulations protect archaeological sites (RCW 27.53 *Archaeological Sites and Records*) and prohibit disturbance or desecration of burials (RCW 27.44 *Indian Graves and Records*, RCW 68.50 *Human Remains*, and RCW 68.60 *Abandoned and Historic Cemeteries and Historic Graves*).

Historical Research Associates, Inc. (HRA), performed a cultural resources inventory consisting of archival review followed by archaeological survey. Archival review of archaeological records revealed that the land within the project area has a moderate probability for precontact and ethnographic-period Native American archaeological materials and a moderate probability for historic-period Euroamerican archaeological materials.

Archaeologists performed pedestrian survey and excavated 25 shovel probes in the project area. No significant precontact or historic-period cultural materials were identified during the survey, and no further archaeological work is recommended for the project.

Table of Contents

List of Figures

1. Introduction and Project Description

Pierce County Parks & Recreation Services contracted Historical Research Associates, Inc. (HRA), to conduct a cultural resources inventory for Phase 3 of the Chambers Creek Canyon Trail-Kobayashi Park Project (Project). The Project is located in Township 20 North, Range 2 East, Sections 22, 27, and 28, Willamette Meridian, Steilacoom USGS Quadrangle, in the Cities of University Place and Lakewood, Pierce County, Washington (Figure 1-1). The Project is part of an existing trail system that connects to Kobayashi Park. This document reviews the results of the cultural resources record search and inventory for the Project.

1.1 Project Description

Pierce County Parks & Recreation Services (Parks), the City of University Place, and the City of Lakewood are co-lead agencies for the Chambers Creek Properties and the associated Master Site Plan, as stipulated in the Joint Procedural Agreement executed on June 8, 2000. For Phase 3 of the Project, the co-lead agencies intend to construct a pedestrian bridge across Chambers Creek to connect trails on both sides of the canyon. Additionally, sections of a proposed pedestrian trail will be constructed between Kobayashi Park and the Chambers Creek estuary as part of the project. This work will include the construction of a 140-foot (ft) pedestrian bridge, a small footbridge across Peach Creek, 1,970 linear ft of boardwalk, and a trailhead on the Lakewood side of Chambers Creek canyon.

1.2 Regulatory Context

The Project is being funded by the Washington State Recreation and Conservation Office (RCO). Since the funding is being drawn from state capitol funds, compliance with Governor's Executive Order 05-05 (EO 05-05) is required. Other applicable state regulations protect archaeological sites (RCW 27.53 *Archaeological Sites and Records*) and prohibit disturbance or desecration of burials (RCW 27.44 *Indian Graves and Records*, RCW 68.50 *Human Remains*, and RCW 68.60 *Abandoned and Historic Cemeteries and Historic Graves*).

1.3 Area of Potential Effects

The area of potential effects (APE) for the Project is considered to be the 1.82-mile (mi) section of the trail that will be improved and the landing area on the south side of the bridge that will be located below the Zircon Drive SW Trailhead (Bridge 2) (Appendix A). The maximum depth of ground disturbance is anticipated to be 20 inches (50 centimeter [cm]) below ground surface. The APE will be accessed by using existing trail heads.

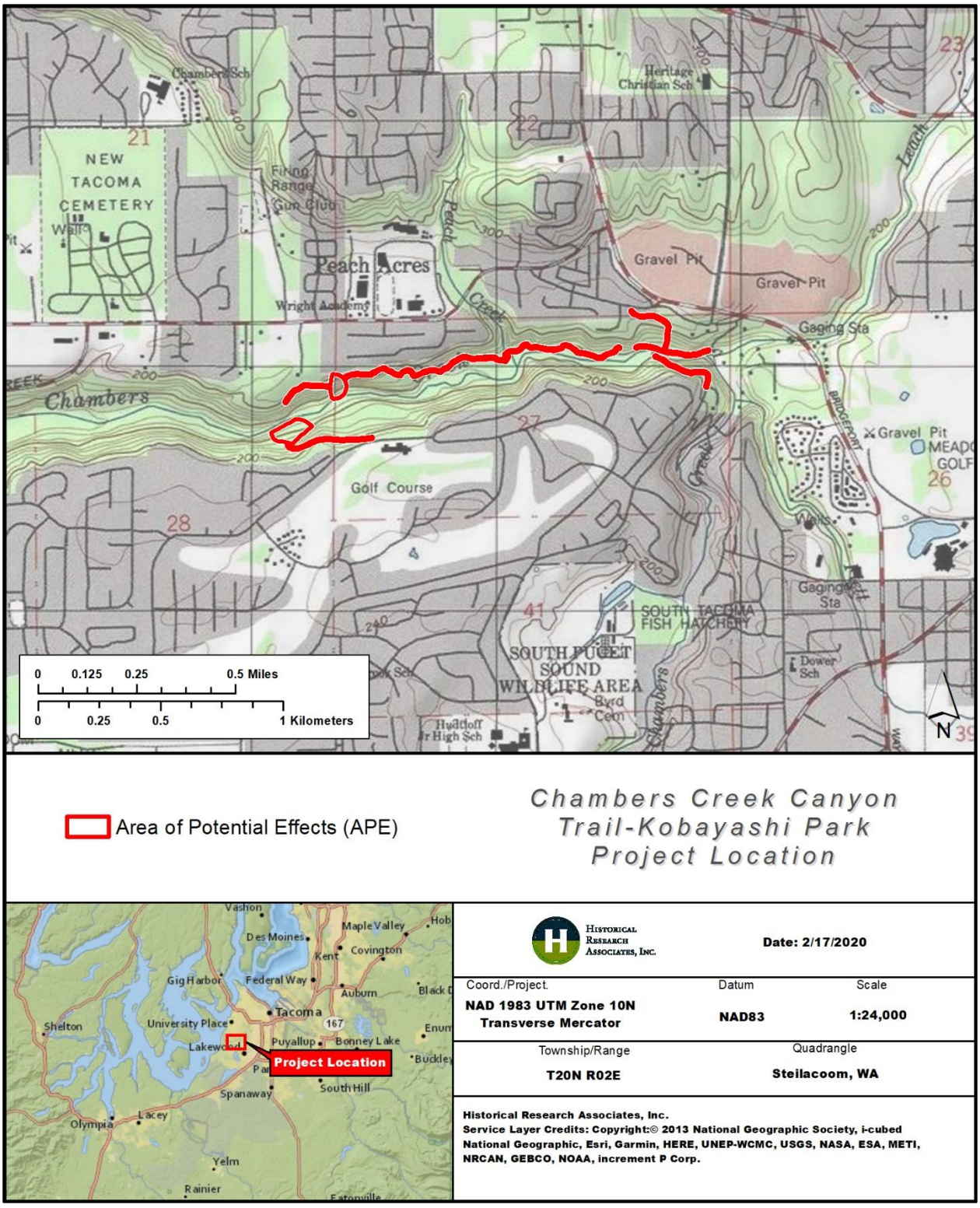

Figure 1-1. Location of the project APE and vicinity.

2. Archival Research

2.1 Research Methods and Materials Reviewed

HRA archaeologist Matthew Warren, PhD, conducted an archival record search for the Project using a research radius of 0.125 mi. Warren reviewed the Washington Department of Archaeology and Historic Preservation (DAHP) online database (Washington Information System for Architectural and Archaeological Records [WISAARD]) for archaeological site records, cultural resources survey reports, and cemetery records within the research radius. Warren also reviewed the statewide predictive model layer on WISAARD for probability estimates for encountering archaeological resources within the APE.

HRA's in-house library was searched for information on the environmental, archaeological, and historical context of the APE and vicinity. Historic-period plats from the U.S. Surveyor General (USSG) General Land Office (GLO) were reviewed for the presence of structures and features that might have been present within the APE, as well as indicators of potential archaeological sites and past land-use patterns. Other historic-period maps and atlases (i.e., Plummer, Kroll, and USGS maps), were also reviewed in order to identify historic-period structures, sites, and features in the vicinity of the APE. In addition, ethnographic sources (e.g., Dailey 2020; Hilbert et al. 2001) were reviewed for information regarding place names, burials, and land-use practices.

2.2 Archival Research Results

2.2.1 Previous Cultural Resources Studies

One previous cultural resources study has been conducted within 0.125 mi of the APE. A cultural resources survey was conducted for an infrastructure improvements project along Bridgeport Way in the cities of Lakewood and University Place. No archaeological resources were identified during the survey, and 15 historic properties were evaluated (Tingwall and Naoi Goetz 2006). The surveyed area passes less than 0.1 mi to the northeast of the northeast end of the APE where it meets Chambers Creek Rd. W.

2.2.2 Previously Recorded Archaeological Sites

There are no previously recorded archaeological resources within 0.125 mi of the APE. The nearest archaeological site, 45PI251 (Zumwalt Site), is approximately 0.4 mi south of the east end of the APE (Gallison 1983).

2.2.3 Cemeteries

There is one cemetery within 0.125 mi of the APE. A set of human remains (PI01221) was identified southeast of the APE (DAHP 2020).

2.2.4 Historic-Period Maps

There are numerous historic-period maps that include the APE. The oldest depictions of the APE are on the 1856 and 1869 GLO plats (USSG 1856, 1869). The first demonstrates the early importance of the region for agricultural production, indicating that the APE was located within lands "claimed by the Puget Sound Agricultural Company" (USSG 1856). The USSG GLO plat produced by the end of the following decade shows that while agricultural plots had been established in several locations to the south and east of the APE, none were located in its immediate vicinity (USSG 1869). These plats identify the creek alongside the APE as Steilacoom Creek, a name that would later be replaced with Chambers Creek and reapplied to one of its tributaries running from Steilacoom Lake to the south (e.g., Metsker 1951, 1960). By the end of the century, lands surrounding the creek had been claimed by Euroamerican settlers, including by one Thomas M. Chambers, after whom the creek was later renamed, less than 1 mi west of the APE (Plummer 1889).

The next earliest maps that include the APE are USGS topographic maps produced in the 1940s, which indicate that significant developments had occurred during the preceding decades (USGS 1940, 1948). The earlier of these maps show that the New Tacoma Cemetery had been established just to the north of Chambers Creek, the State Pheasant Farm was present to the southeast of the APE, and the road presently designated Chambers Creek Rd. W that runs parallel to Chambers Creek at the east end of the APE had been built by this time (USGS 1940). The area around Chambers Creek became increasingly settled by the end of the decade, the Tacoma Gun Club and Peach Acres had opened to the north of the APE, and the State Pheasant Farm had been re-designated the State Game Refuge (USGS 1948).

During the 1950s, extensive further developments occurred in the vicinity of the APE. The State Game Refuge had expanded to become the State Game Farm & Fish Hatchery, while land parcels along Chambers Creek that included the APE had been sold by this time to Hewitt Land Co., Tacoma Co., E. M. Zutafern, and E. L. C. Proulx, and "Chamber Cr. Rd." is depicted as passing through what is presently Kobayashi Park at the eastern end of the APE (Metsker 1951). Several gravel quarries were opened northeast of the APE during the 1950s, along with one golf course to the south of its west end and a second, Meadow Park Golf Course, east of Bridgeport Way to its east. The State Game Farm & Fish Hatchery had evidently been divided into two separate, adjacent properties, the South Puget Sound Wildlife Area and the South Tacoma Fish Hatchery (USGS 1959). Suburban development continued in the area over the following decades, particularly to the south and east of the Chambers Creek canyon (Metsker 1960; USGS 1968, 1973, 1981, 1997).

2.2.5 Previously Recorded Historically Significant Properties

There are no historically significant properties listed in the National Register of Historic Places (NRHP), the Washington Heritage Register (WHR), or other historical registers within 0.125 mi of the APE.

2.2.6 DAHP Predictive Model

The DAHP has generated a predictive model for the likelihood of encountering archaeological sites based on statewide information and large-scale factors. Information on geology, soils, site types, landforms, and features depicted on GLO maps were used to establish or predict probabilities for archaeological resources throughout the state. The DAHP model uses five categories of prediction: Low Risk, Moderately Low Risk, Moderate Risk, High Risk, and Very High Risk. The DAHP predictive model map indicated that the APE predominantly includes areas of Moderately Low to High Risk for the discovery of archaeological resources. A Very High Risk area is located at the far west end of the APE in the vicinity of the proposed pedestrian bridge landing area and the trail route above (south) of it.

3. Environmental Context

Environmental variables such as geology, climate, topography, fauna, and flora affect the way humans use the landscape. The information below presents the resources that would have been available to precontact and ethnographic-period groups inhabiting, seasonally frequenting, and traversing the APE and surrounding vicinity.

3.1 Topography and Geology

The APE is located along the slopes and bottom of the canyon through which Chambers Creek flows, between the cities of University Place and Lakewood in Pierce County, Washington. Most of the APE is located along the steep northern slopes and adjacent marshlands of the canyon, while a small section is located along the southern slope of the canyon at the west end of the APE. The APE lies within the northern half of the Puget Trough Physiographic Province of western Washington. The north–south trough of the Puget Lowland separates the Olympic Mountains to the west from the Cascade Range to the east. This lowland region was carved out by glacial activity during the final period of Pleistocene glaciation of western Washington (the Vashon Stade) (Franklin and Dyrness 1973:17). As glaciers retreated at the end of the Pleistocene, the coastal and adjacent lowlands experienced isostatic rebound and were extensively colonized by new plant and animal communities.

Chambers Creek flows northward out of Lake Steilacoom before abruptly changing course in northern Lakewood, where it shifts to a general east–west orientation and empties into Chambers Bay north of Steilacoom. The creek represents a natural boundary between northern Lakewood and Steilacoom to the south, and South Tacoma and University Place to the north. The bedrock of the area in the vicinity of the APE consists of Pleistocene (Fraser-Age) continental glacial outwash (Franklin and Dyrness 1973:17; WSDNR 2020). The soils at the base of the canyon along the margins of Chambers Creek are classified as Aquic Xerofluvents, with Xerochrepts (45 to 70 percent slopes) present on its steep northern and southern slopes. The U.S. Department of Agriculture (USDA) further specifies that a typical soil profile of Aquic Xerofluvents is characterized as silt loam between 0 to 10 inches (in) below ground surface, fine sandy loam between 10 to 32 in, and loamy fine sand between 32 to 60 in. This soil is somewhat excessively drained, with a water table at about 0 to 10 in below ground surface. A typical soil profile of Xerochrepts (45 to 70 percent slopes) is characterized as gravelly sandy loam between 0 to 40 in below ground surface and very gravelly sandy loam between 40 to 60 in. This soil is well drained, with a water table at more than 80 in below ground surface (USDA Soil Survey 2020).

3.2 Climate and Vegetation

The APE is located within the *Tsuga heterophylla*, or western hemlock, vegetation zone. The dominant climax species in this zone include Douglas fir (*Pseudotsuga meniesii*), western hemlock (*Tsuga heterophylla*), and western red cedar (*Thuja plicata*), with red alder (*Alnus rubra*) and bigleaf maple (*Acer macrophyllum*) dominating in disturbed areas (Franklin and Dyrness 1973:72). Understory species commonly found in the forested areas of this zone include vine maple (*Acer circinatum*), Pacific rhododendron (*Rhododendron macrophyllum*), oceanspray (*Holodiscus discolor*), western yew (*Taxus brevifolia*), Pacific dogwood (*Cornus nuttallii*), red huckleberry (*Vaccinium parvifolium*), Oregon grape (*Mahonia nervosa*), salal (*Gaultheria shallon*), trailing blackberry (*Rubus ursinus*), devil's club (*Oplopanax horridus*), and creeping snowberry (*Gaultheria hispidula*) (Franklin and Dyrness 1973). The regional climate is characterized by cool summers and mild, relatively wet winters (Suttles 1990:17).

Within the APE, the dominant tree species include bigleaf maple, western red cedar, Douglas fir, and western hemlock. Sword fern (*Polystichum munitum*), vine maple, and Himalayan blackberry (*Rubus discolor*) represent the most prevalent understory plants.

3.3 Fauna

Historically-common animal species in the vicinity of the APE included blacktailed deer (*Odocoileus hemionus*), elk (*Cervus elaphus*), black bear (*Ursus americanus*), cougar (*Felis concolor*), bobcat (*Felis rufus*), coyote (*Canis latrans*), red fox (*Vulpes vulpes*), fisher (*Mustela* sp.), marten (*Mustela* sp.), muskrat (*Ondatra zibethica*), beaver (*Castor canadensis*), bald eagle (*Haliaeetus leucocephalus*), and a variety of owls, ducks, and small songbirds. Large mammals had fairly extensive ranges and were more common in upland areas. Riverine and wetland habitats typically support a specialized but diverse array of fauna that includes racoon (*Procyon lotor*), river otter (*Lutra canadensis*), beaver, and a variety of migratory waterfowl and woodland birds (Eder 2002; Kruckeberg 1991; Larrison 1967).

The Chambers Creek Watershed has historically supported a number of salmon species, including coho (*Onchorhynchus kisutch*), Chinook (*O. tshawytcha*), sockeye (*O. nerka*), and chum (*O. keta*), as well as steelhead (*O. mykiss*) and coastal cutthroat trout (*O. clarki* ssp.). Presently, only cutthroat trout, coho, and chum salmon are commonly observed. Modern dams and fish weirs have reduced salmonid access to the Chambers Watershed, and as a result the populations of all these species are in decline (Pierce County 2018).

Within the APE, mammal species observed included blacktailed deer and racoon. Several bird species, including small songbirds, ducks, red-tailed hawk (*Buteo jamaicensis*) and red-breasted sapsucker (*Sphyrapicus ruber*) were also observed.

4. Cultural Context

This section provides an overview of human occupation over the past 14,500 years in North American, and more specifically, in the Pacific Northwest. Understanding how humans interacted with the landscape helps archaeologists determine the probability of cultural deposits and provides a framework for expectation of archaeological materials.

4.1 Precontact Background

Based upon current scientific understandings of the archaeological record, the earliest human occupations in the Pacific Northwest were characterized by highly mobile bands of broad-spectrum foragers. The widespread Clovis culture, the first well-defined cultural complex in North America, has been dated to between 12,800 and 13,200 calibrated years before present (cal. B.P.) (Ames and Maschner 1999:65–66; Kirk and Daugherty 2007:13). Recent research suggests that large stemmed projectile points (i.e. Western Stemmed complex) may have been produced by populations pre-dating Clovis (e.g., Jenkins et al. 2012). These early Paleoindian cultures consisted of small, nomadic bands that specialized in hunting a variety of small- to large-sized game animals, including megafauna that went extinct across North America at the end of the Pleistocene (e.g., wooly mammoth [*Mammuthus primigenius*], mastodon [*Mammut americanum*], ancient bison [*Bison antiquus*]) (Kirk and Daugherty 2007:13).

In western Washington, examples from this period include the Manis Mastodon Site (45CA218) and the Bear Creek Site (45KI839). At the Manis Site, located approximately 65 mi northwest of the APE near Sequim, a human-made bone point was found lodged in the ribs of a mastodon. Encountered within a peat bog, these remains provided clear evidence of early large-game hunting in the region (Waters et al. 2011). At the Bear Creek Site, located approximately 38 mi northeast of the APE in Redmond, a diverse stone tool assemblage was found dating to between approximately 12,500 and 10,000 cal. B.P. (Kopperl et al. 2015). This site appears to have been occupied for several thousand years and contained evidence of the procurement and processing of plant, mammal, and fish resources. Across other parts of Washington state, Western Stemmed and Clovis projectile points have also been found dating to this period (Beck and Jones 2010).

Following the Clovis period, early and middle Archaic populations across western Washington produced large, willow leaf-shaped ("Olcott" phase) projectile points, in addition to lanceolate points and scrapers (Ames and Maschner 1999; Kopperl et al. 2016; Nelson 1990:483). Similar projectile points have been found in sites from the Fraser River Valley in British Columbia down to the margins of the Columbia River, indicating the wide dispersal of related groups across the broader Northwest Coast during this period. Sites containing Olcott material are most commonly documented well inland from the coast along rivers, suggesting that these populations were likely

still subsisting largely upon terrestrial plant and animal resources and had not yet developed the extensive reliance upon littoral food resources observed among later Coast Salish peoples (Kopperl et al. 2016; Nelson 1990:483). The Zumwalt Site (45PI251), located approximately 0.5 mi south of the APE in Lakewood, is an example of an Olcott Phase site. Diagnostic Olcott-style lanceolate bipoints, stemmed projectile points, and numerous nondiagnostic cobble and flake tools were identified at Zumwalt, which is believed to have been used as a campsite and stone tool manufacturing location (Stump 1983).

Between approximately 6400 and 2500 cal. B.P., there was a gradual shift across the Northwest Coast to an increasingly heavy reliance on marine and riverine resources for subsistence. This shift was coincident with a general trend toward increasing sedentism as more sites were settled along river courses, estuaries, and productive marine environments (Ames and Maschner 1999:93–94; Nelson 1990:483). During this period, which has been subdivided into the Early Pacific (6400–3700 cal. B.P.) and Middle Pacific (3700–2400 cal. B.P.), settlements began to be occupied on a seasonal basis. Larger, denser artifact concentrations have been identified within Early and Middle Pacific period sites, and deep shell middens have been dated to as early as 5,200 years ago (Larson and Lewarch 1995; Mierendorf 1986:57; Wessen 1988). It was during this time that coastal and neighboring inland communities developed their complex suites of lithic, bone, and antler tool technologies suited for marine mammal hunting, riverine fishing, and the further exploitation of terrestrial plant and animal resources (Ames and Maschner 1993:93–95; Blukis Onat et al. 1980:29–30; Kopperl et al. 2016:117–118). Early evidence of the use of marine littoral resources in the region, primarily shellfish, was encountered at the Dupont Southwest Site (45PI72), located approximately 9 mi southwest of the APE. Shell lenses, stone tools, and other faunal materials consistent with the use of the site for shellfish processing were encountered in deposits dating up to 6180 to 5930 cal. B.P. (Kopperl et al. 2016; Wessen 1988).

Along with steady population growth and increasingly intensive resource utilization across the broader Northwest Coast, Late Pacific (2400–200 cal. B.P.) precontact archaeological sites in the region demonstrate the emergence of status differentiation and complex social hierarchies (Ames and Maschner 1999:95–96). Increased reliance on stored foods and controlled access to resources, including salmon and shellfish, also developed during this period. By this time, the general ethnographic pattern observed along the Northwest Coast had become well-developed, although these societies saw increasingly dramatic changes due to the arrival of Euroamerican explorers, traders, and settlers beginning in the late 1700s (Ames and Maschner 1999:95–96, 112).

A number of shell midden sites dating to the past several thousand years have been recorded in and around the Puget Sound area. The West Point Sites (45KI428 and 45KI429), located at Discovery Park approximately 32 mi north of the APE, have been interpreted as long-term camping and food-processing activity areas (Larson and Lewarch 1995). Five distinct cultural components indicate use of the sites between 4200 and 200 cal. B.P. These sites included a number of personal items, including beads, bracelets, and labrets, which may be related to developing social inequality in the region (Ames and Maschner 1999). The West Point Sites also yielded a highly diverse tool kit,

including bone as well as ground and chipped stone implements used for capturing and processing prey (Larson and Lewarch 1995). Their highly diverse faunal assemblages include sea mammals, fish, terrestrial mammals, birds, and shellfish, indicating exploitation of a number of available niches.

4.2 Ethnographic Background

The APE is within the traditional territory of the Steilacoom people, who are closely related to both the Puyallup and the Nisqually. The tribe comprised five bands that lived along the waterways, lakeshores, and Puget Sound coastline in a territory that included lands from the tidal flats at the mouth of the Nisqually River north to Tacoma, and inland to the mountains (AAC 2008:13; Ruby and Brown 1992:222–223; Steilacoom Tribe 2013). The principal settlements of this ethnographically documented Southern Coast Salish people were located along Chambers Creek (formerly Steilacoom Creek) and its tributaries (Steilacoom band), as well as along Sequalitchew Creek (Segwallitchew band), Murray Creek (Tlithlow band), Clover Creek (Sastuck band), and Spanaway Lake (Spanaway band) (Steilacoom Tribe 2013).

Like their neighbors to the north and south, the Steilacoom are a Lushootseed-speaking people. Prior to the Euroamerican Contact period, the Steilacoom were part of the broader Southern Coast Salish culture which was generally adapted toward the intensive utilization of marine and riverine resources (Suttles and Lane 1990). They fished in the creeks and lakes throughout their territory, as well as around the islands in southern Puget Sound (Ruby and Brown 1992:223).

Like other Southern Coast Salish peoples, the Steilacoom relied heavily upon salmon and other fish for subsistence and utilized a diverse suite of technologies to harvest them in different settings. They made use of trolling, seine, and gill net technologies to harvest fish in Puget Sound, while weirs, nets, gaff hooks, harpoons, and spears were all employed in rivers (Suttles and Lane 1990:488–489). Terrestrial mammals, especially black-tailed deer and elk, were also hunted by the Steilacoom and neighboring Coast Salish groups using the bow and arrow, and they gathered a great variety of plant foods, including edible roots, bulbs, and berries (Ruby and Brown 1992:223; Suttles and Lane 1990:489).

The Steilacoom lived a semi-sedentary lifestyle, spending part of the year in permanent winter villages and the warmer months visiting and trading with other communities and traveling across their territory and the southern Puget Sound to fish, hunt, and gather plant resources. Village communities would disperse into smaller bands for the summer months, returning to their permanent settlements for the ceremonially rich winter season and to intensively fish in the spring and fall (Ruby and Brown 1992:223; Suttles and Lane 1990).

In 1854, members of the Steilacoom and neighboring Puget Sound tribes signed the Medicine Creek Treaty, which directed the removal of tribal members to reservations. Despite being signatories of the treat, the Steilacoom were not provided their own reservation. The treaty negotiators were under federal pressure not to establish reservations in areas expected to be intensively settled by

Euroamerican populations, and the city of Steilacoom was at this time developing rapidly as an important port in southern Puget Sound. Instead, the Steilacoom people were directed to move to either the Puyallup, Nisqually, or Squaxin reservations. While some chose to do so, others remained in the Steilacoom area, and this latter group represents the ancestors of most modern Steilacoom tribal members (Ruby and Brown 1992:223–224; Steilacoom Tribe 2013). The Steilacoom Tribal Cultural Center is presently operated by the tribe at the historic former Oberlin Congregational Church building in downtown Steilacoom (Steilacoom Tribe 2013).

Several Steilacoom villages were recorded in the vicinity of the APE. Located at the mouth of Chambers Creek, the village of t'Stehl-eh-kuhb-ahbch was one of the principal population centers of the tribe, and its headman possessed more influence and wealth than those of the other villages (Dailey 2020; Steilacoom Tribe 2013). Also known as Stc!te'lqûb or sc̓̆(i)tilqʷəb ("near the water"), this village name was Anglicized into Steilacoom and subsequently assigned to the Euroamerican fort, port, and city established south of Chambers Creek between 1849 and 1851 (Hilbert et al. 2001:325–326; Ruby and Brown 1992:223–224). The original village was located approximately 2 mi to the southwest of the APE. The Steliacoom inhabited an additional five unidentified sites along Chambers Creek, while a smaller, unidentified village also existed along Clover Creek, located approximately 8 mi to the southeast of the APE (Dailey 2020; Steilacoom Tribe 2013).

Several ethnographically named non-village locations are also known in the area near the APE. One of these was qiawalapsəb ("easy to the throat"), which refers either to Gordon Point or the location of present-day downtown Steilacoom, approximately 4 mi to the southwest of the APE. Several named lakes near the APE included CtcE'txûd ("black bear," present-day Gravelly Lake) and ᵀᵘxwi'yatchi (present-day American Lake), located approximately 3 mi and 4 mi to the south, respectively. The former was named for a black bear that was said to enter and exit the lake, causing its level to rise and fall, while the latter name refers to the palm of one's hand. This seems to refer to the presence of a supernatural being in the lake that would raise only its hand out of the water (Hilbert et al. 2001:325–328).

4.3 Historic-Period Background

By the 1820s, the Hudson's Bay Company (HBC) was active in the region surrounding the APE, and within a decade had established a temporary storehouse and encampment (Nisqually House) next to the Steilacoom village at the mouth of Sequalitchew Creek (Carpenter 1986:36; Echtle 2018). Because the area was strategically located between Fort Langley and Fort Vancouver, the HBC quickly erected Fort Nisqually between 1832 and 1833. Realizing the diminishing returns of the regional fur trade, the HBC began to shift its operations in the area toward agricultural production, bringing in settlers from Canada to lease local farm plots in exchange for a share of their harvest and profits (AAC 2008:14–15). These operations were short-lived, however, as American settlers began moving into the region by the mid-1840s and the Treaty of Oregon (1846) set the boundary between the U.S. and British territories at the 49th parallel shortly thereafter (Echtle 2018). During this early

period of Euroamerican settlement, relations with the local Native American tribes were occasionally tense, and a Snoqualmie attack on Fort Nisqually in 1849 prompted the U.S. military to establish Fort Steilacoom near Chambers Bay.

The early history of Chambers Creek was closely tied to the founding and development of this military fort, as well as the town of Steilacoom several miles to the southwest. The first settlers in the area were Thomas Chambers, who built a sawmill and grist mill along Chambers Creek, and Captain Lafayette Balch, who established a hotel and wharf that together constituted what he named Port Steilacoom. While developments along Chambers Creek were never extensive, Port Steilacoom rapidly grew into a proper town and was designated the seat of newly created Pierce County of the Oregon Territory in 1852. By 1855, Steilacoom featured a post office, a daily school, a courthouse, three hotels, and a Methodist Episcopal Church, as well as numerous small businesses and as many as 70 dwellings (Echtle 2018).

This prosperous beginning was interrupted by the contentious negotiation and signing of the Medicine Creek Treaty (1854) however, which led to the 1855–1856 war between some of the Native American tribes of the region and its Euroamerican settlers. In response, Territorial Governor Isaac Stevens ordered the U.S. military to relocate many of the non-hostile local Native groups, including members of the Steilacoom tribe, to internment camps on nearby Fox and Squaxin Islands. After the end of the war and repeated trials, the Nisqually chief Leschi was sentenced to death for his prominent role in the conflict, and the execution was carried out near Fort Steilacoom in 1858 (AAC 2008:16; Echtle 2018; Ruby and Brown 1992:151). Although the fort was significantly expanded by the late 1850s, the number of U.S. military troops stationed at the fort was dramatically reduced when the outbreak of the Civil War in 1861 drew most of its soldiers to the east. Fort Steilacoom was ultimately abandoned on April 22, 1868, as it was no longer perceived to be a necessary military installation (AAC 2008:17; Echtle 2018).

The fortunes of the town of Steilacoom seemed promising in the immediate aftermath of the Civil War, as the town was linked to various ports across Puget Sound by the Mosquito Fleet of ferries and freighters. Unfortunately, the 1873 construction of a Northern Pacific Railway line to Tacoma unexpectedly bypassed Steilacoom, compelling many local residents and businesses to relocate to the north. A further blow came when the town lost its status as Pierce County seat to Tacoma in 1880. However, the establishment of an interurban streetcar service by the Tacoma and Steilacoom Railway Company in 1891 once again made Steilacoom a readily accessible community, and the town became increasingly reliant upon tourism as an important local economic driver (Echtle 2018).

By the end of the century, the prairielands across present-day Lakewood that had long been maintained through burning by local Native American peoples began to be extensively settled by Euroamerican settlers. Extravagant estates were built along the shores of the larger lakes in the area, while attractions such as the Tacoma Country and Golf Club and the Tacoma Speedway brought considerable regional attention and tourism to the Lakewood area during the early twentieth century (Lakewood Historical Society 2020). The developing community situated between Chambers Creek

and Tacoma was selected as the future location of the University of Puget Sound (originally Puget Sound University) in the early 1890s and was thereafter referred to as University Place. For financial reasons, the university was eventually established in Tacoma rather than University Place, although the name remained in use (University Place Historical Society 2018).

Population centers around Chambers Creek continued to develop over the following decades, although the city of Steilacoom never regained its initial status as it gradually became eclipsed in size and prominence by Tacoma and its growing suburbs. Emerging industries in the area included paper production and the exportation of local stone, with a pulp mill and rock quarries being opened in the vicinity of Chambers Bay by the end of World War I. Along with the rest of the country, the area saw a severe economic downturn during the Great Depression, a blow exacerbated by the loss of a number of Steilacoom's prominent historical buildings in the 1930s. In the years following World War II came a renewed push to restore and preserve Steilacoom's remaining historic architecture, as well as to designate historical monuments celebrating the town's important role in a number of significant regional events. Booming populations and suburban sprawl, particularly during the latter half of the twentieth century and into the present day, have led to the integration of Steilacoom, Lakewood, and University Place as bedroom communities of Tacoma and the surrounding region (Echtle 2018). Over a century after the arrival of the first Euroamerican settlers to the area, the residents of University Place voted for incorporation in 1994, followed shortly thereafter by the incorporation of the city of Lakewood in 1996 (Lakewood Historical Society 2020; University Place Historical Society 2018).

5. Expectations for Hunter-Fisher-Gatherer, Ethnographic Period, Historic Indian, and Historic Euroamerican Cultural Resources

Based on the background research presented above, HRA developed probabilities for precontact and historic-period archaeological resources in the project area. These expectations assisted in developing the archaeological survey methodology and a treatment plan for cultural materials, if they are encountered.

The DAHP predictive model indicates a High Risk area for encountering archaeological sites at the west end of the APE in the proposed pedestrian bridge landing area and the trail leading to it from the south. The remainder of the APE includes areas of Moderately Low to High Risk, with the High Risk areas concentrated along the margins of Chambers Creek and Moderately Low to Moderate Risk areas in the steep slopes of the canyon. The APE is within 2 mi of at least one important ethnographically recorded Native American village site, which was located at the mouth of Chambers Creek to the west. Several geographic features in the region are known to have Lushootseed place-names, indicating the traditional importance of the greater Chambers Creek and Steilacoom area. The APE, along with the rest of Chambers Creek canyon, was subject to extensive logging in the early twentieth century, and sections of the canyon downriver experienced development associated with milling and damming activities since the mid-nineteenth century. Any precontact or historic-period archaeological sites in the vicinity of the APE would most likely be located on small, flat promontories on the slopes of the canyon or amidst the marshlands alongside Chambers Creek itself.

HRA expects a moderate likelihood of encountering precontact and ethnographic-period archaeological resources during the pedestrian and subsurface survey. The surface geology within the APE is classified as late Pleistocene glacial outwash. Pleistocene-age deposits have little to no potential to contain deeply buried archaeological resources. Any precontact or ethnographic-period resources that existed within the APE could have been significantly disturbed by the extensive regional logging activities that began in the 1850s. Nevertheless, the ethnographic record of local Native American land use and the presence of several precontact shell midden sites on terraces along and south of Chambers Creek indicates that that this watershed was an important focus of late Holocene and ethnographic-period activity and settlement. Precontact and ethnographic-period resources within the project area could include lithic, bone, and shell artifacts, as well as features such as shell middens (dense layers of shell, organic-rich soil, and associated artifacts) and hearths (e.g. fire-modified rock [FMR], charcoal, burnt earth.

HRA expects a moderate likelihood of encountering archaeological resources associated with historic-period Euroamerican land use in the project area. While local companies and individual landowners seem to have purchased parcels of land that overlapped with the APE by the end of the nineteenth century, there is no cartographic evidence that the steep canyon hillsides or flatlands alongside Chambers Creek were developed within the APE. Cultural remains of logging activity may, however, be present within the APE. Remnants of such activity may include springboard-notched stumps, miscellaneous metal, and even domestic debris from short-term camps.

6. Field Strategy and Methods

6.1 Utility Locates

The state of Washington requires that consultants/contractors call for utility locates prior to conducting fieldwork (RCW 19.122). HRA submitted a utility locate request (ticket number 20054464) for the project location on February 14, 2020, providing the locate service with documentation in the form of a map and accompanying text description to complete the survey and determine whether utilities have been installed in the ground-disturbing areas of the APE.

6.2 Archaeological Inventory

Using design plans provided by Pierce County Parks, HRA conducted an archaeological survey of the APE from February 19 to 21, 2020. Archaeologists generally walked a single pedestrian transect along the proposed trail alignment, and walked pedestrian transects evenly spaced at 10-meter (m) intervals within the 50 m buffer zone portions of the APE at the proposed Bridge 2 landing below the Zircon Drive SW Trailhead and between trail points 95 and 99. They excavated shovel probes within two segments of the APE along the proposed trail alignment, from trail point 1 to 31 and from trail point 44 to 77, to assess the probability for and to identify buried cultural materials.

Shovel probe placement was determined by the field supervisor based on the project's design plan, ground-surface conditions, topographic circumstances, and other field observations. Probes were excavated up to 50 cm below ground surface with a shovel. Excavated sediment was screened through ¼-in mesh. Archaeologists documented observed sediment within the probes on standard HRA shovel probe forms. Observations included, but were not limited to, sediment grain size, presence of gravels, evidence of disturbance, and presence of cultural materials. The probe holes were filled upon completion of documentation and their location was noted using an Apple iPad paired with a Trimble R1 GNSS Receiver and outfitted with Collector for ArcGIS version 20.1.0.

7. Archaeological Results

7.1 Utility Locates

No underground utilities were indicated as present within the APE.

7.2 Archaeological Inventory

HRA performed pedestrian and subsurface inventory from February 19 to 21, 2020. The weather was generally overcast and cool. HRA archaeologist Matthew Warren, PhD, led the inventory, assisted by HRA archaeological technicians Althea Fitzpow, Melody Mullally, and Taylor Smith.

The APE consists of forested terrain along the north and south slopes of the canyon through which Chambers Creek flows (Figure 7-1). The proposed trail is located on flat canyon bottomlands along Chambers Creek and on slopes of moderate (21–50 percent) to high (51–99 percent) steepness above the Chambers Creek floodplain. Portions of the APE, including at its west and east ends, intersect with segments of preexisting pedestrian trails and are therefore on well-compacted, easily accessible terrain. Most of the APE, however, is located on unmodified marshland and steeply sloped terrain (Figures 7-2 and 7-3). Due to the presence of steep slopes along the creekside margins of the two buffer zone portions of the APE, full pedestrian survey coverage of these zones was not possible (see Appendix B).

Figure 7-1. Overview of Chambers Creek at the west end of the APE, view northwest.

Figure 7-2. Overview of the marshland setting alongside Chambers Creek, view south.

Figure 7-3. Overview of steep northern slope of Chambers Creek, view west.

Ground visibility was typically poor due to the presence of extensive leaf litter and low-growing understory vegetation, which predominantly included sword fern, Himalayan blackberry, and moss. Portions of the APE within the Chambers Creek floodplain also passed through inundated marshlands in which the ground could not be directly observed. Examples of modern debris (e.g., plastic piping, glass bottles, car tires, assorted metal waste) were encountered at low frequencies throughout the APE, and the remains of a homeless encampment were present near its east end. An abandoned car (1973 Oldsmobile Cutlass Supreme coupe) was identified in the vicinity of trail point 39 on a relatively flat terrace overlooking Chambers Creek.

Up to a dozen springboard-notched old growth tree stumps were identified during the survey. With the exception of one stump located within the APE, all were outside of and north of the APE along the steep northern slope of Chambers Creek Canyon. The springboard-notched stump within the APE is on the proposed trail alignment between trail points 22 and 23 (Figure 7-4), while a second was located immediately adjacent to the APE north of trail point 48. These stumps were noted but not recorded, as they are considered common, ubiquitous resources by the DAHP.

Figure 7-4. Springboard-notched old growth stump within the APE between trail points 22 and 23.

7.2.1 Shovel Probe Cultural Materials

HRA archaeologists excavated 25 shovel probes (SPs) within the APE, all of which were negative for significant precontact and historic-period cultural materials. Non-diagnostic glass sherds were encountered within two SPs within the upper 50 cm below surface (cmbs). These materials were noted but not recorded because they were temporally nondiagnostic.

7.2.2 Shovel Probe Sediments/Stratigraphy

The first 16 SPs (SP1 to SP16) were located along the proposed trail alignment between trail points 1 and 31, while the remaining SPs (SP17 to SP25) were located along the proposed trail alignment between trail points 44 and 77. The typical sediment stratigraphy observed within the SPs located along the flat or gently sloped canyon floodplain consisted of an upper stratum of dark gray to dark brown sandy loam (average thickness of approximately 10–20 cm) with some to many rounded to subangular gravels, ranging from small pebbles to small cobbles, and some to many tree and shrub roots. Beneath this, sediments typically consisted of light brown to olive-brown loamy sand with some to many rounded to subangular gravels, ranging from small to large cobbles (Figure 7-5). The water table was occasionally reached near the bottom of the probes, between 40 and 50 cmbs.

Figure 7-5. Top-down overview of SP15, displaying representative stratigraphy within the floodplain portion of the APE.

The typical sediment stratigraphy observed within the SPs located along the slopes of Chambers Creek Canyon consisted of a dark brown to dark reddish-brown organic-rich humic layer of varying thickness that contained trace amounts of sand and silt. In several cases, this layer extended down to the maximum depth of the probe. The typical sediments underlying the humic layer consisted of olive-brown to dark brown sandy loam to loamy sand with some to many subrounded to subangular gravels, ranging from small to medium-sized cobbles (Figure 7-6). Tree and shrub roots were common at all depths. The water table was not reached in any of the probes excavated along the slopes of the canyon. No significant cultural materials were encountered in any of the probes.

Figure 7-6. Top-down overview of SP21, displaying representative stratigraphy along the northern canyon slope of the APE.

8. Summary and Recommendations

8.1 Archaeological Resources

HRA performed an archaeological inventory of the APE from February 19 to 21, 2020, that included pedestrian survey and shovel probing. The forested Chambers Creek Canyon environment in which the APE is located has been previously disturbed by logging activities since the mid-nineteenth century. This is evidenced by the presence of numerous springboard-notched old growth stumps within the canyon. Modern or temporally non-diagnostic glass sherds were observed in several of the shovel probes that were excavated within the APE, but no significant archaeological resources were observed.

8.2 Accidental Discovery of Archaeological Resources

In the event that archaeological deposits are inadvertently discovered during construction in any portion of the APE, ground-disturbing activities should be halted immediately, and the project manager should be notified. The project manager would then contact DAHP and the interested Tribes, as appropriate.

8.3 Discovery of Human Remains

Any human remains that are discovered during project-related ground disturbance, construction, maintenance, or operation activities will be treated with dignity and respect.

In the event that human remains are discovered during ground disturbance, construction, maintenance, or operation of the Project, the following procedures are to be followed to ensure compliance with RCW 68.60 *Abandoned and Historic Cemeteries and Historic Graves*, and RCW 27.44 *Indian Graves and Records*.

If ground-disturbing activities encounter human skeletal remains during the course of the Project, then all activity **will** cease that may cause further disturbance to those remains. The area of the find will be secured and protected from further disturbance until the State provides notice to proceed. The finding of human skeletal remains **will** be reported to the Pierce County Coroner **and** local law enforcement in the most expeditious manner possible. The remains will not be touched, moved, or further disturbed.

The Pierce County Coroner will assume jurisdiction over the human skeletal remains and make a determination of whether those remains are forensic or non-forensic. If the Pierce County Coroner determines the remains are non-forensic, then they will report that finding to DAHP, who will then take jurisdiction over the remains. DAHP will notify any appropriate cemeteries and all affected

Tribes of the find. The State Physical Anthropologist will make a determination of whether the remains are Native American or non-Native American and report that finding to any appropriate cemeteries and the affected tribes. DAHP will then handle all consultation with the affected parties as to the future preservation, excavation, and disposition of the remains.

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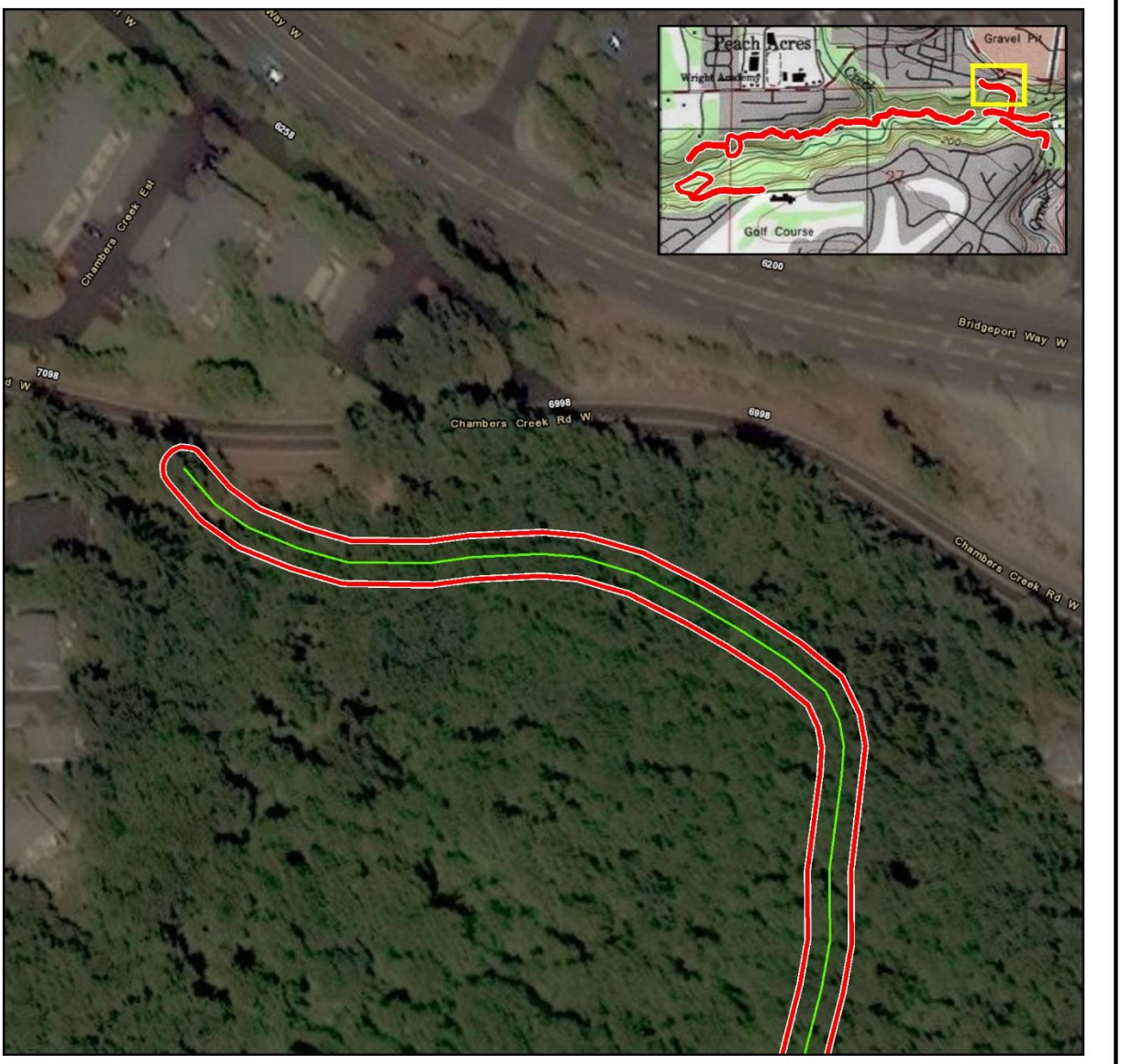
Appendix A: Aerial Overview of APE



Chambers Creek Canyon Trail-Kobayashi Park Project Phase 3 Aerial Overview

- Trail Points
- Proposed Trail Alignment
- Area of Potential Effects (APE)
- Area to be Shovel Probed

Date: 2/28/2020

Historical Research Associates, Inc.

Coord/Projection	Datum	Scale
NAD 1983 UTM Zone 10N Transverse Mercator	NAD83	1:1,500

Township/Range	Quadrangle
T20N R02E	Steilacoom, WA

Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors
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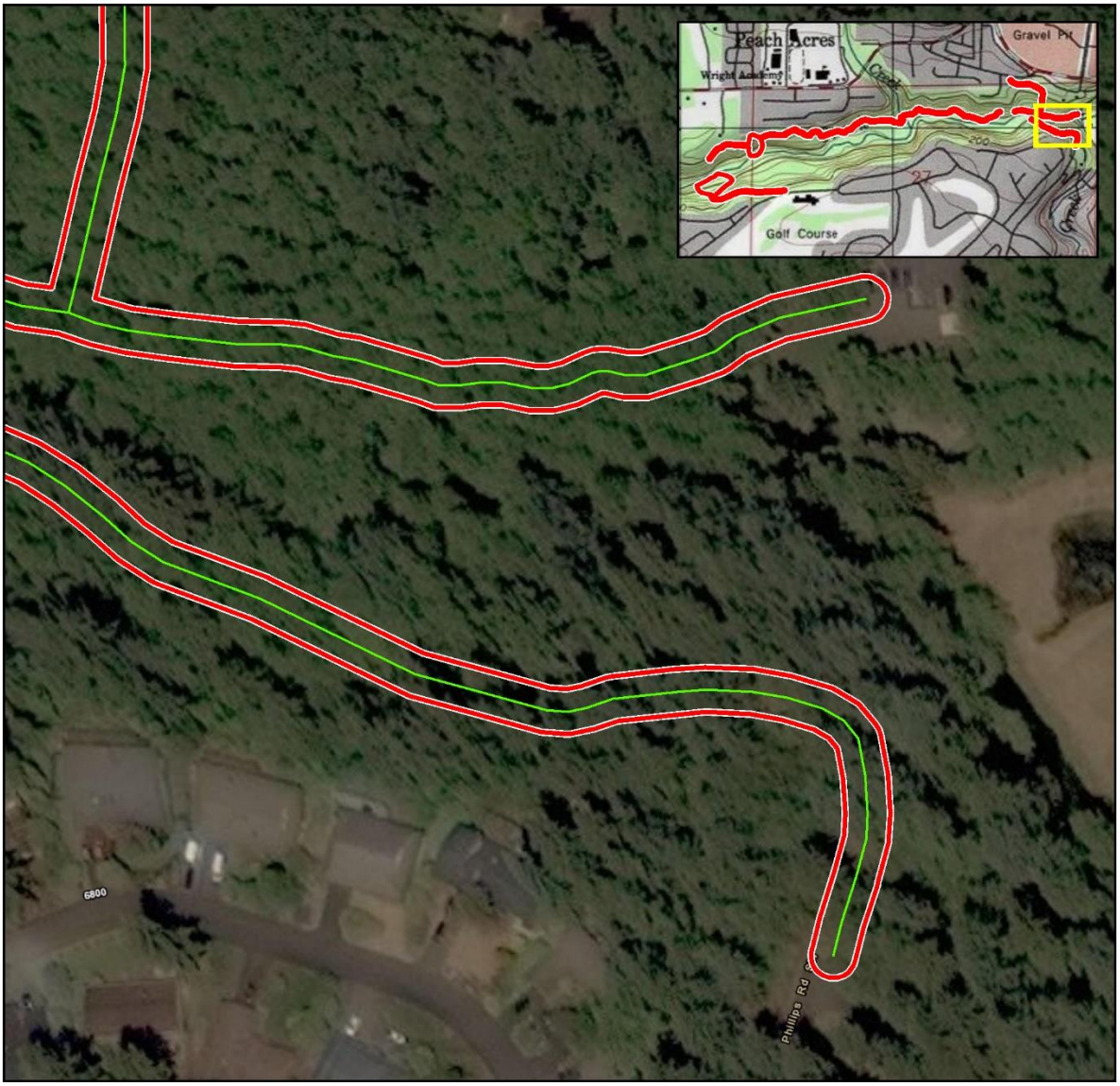
Historical Research Associates, Inc., Seattle, WA



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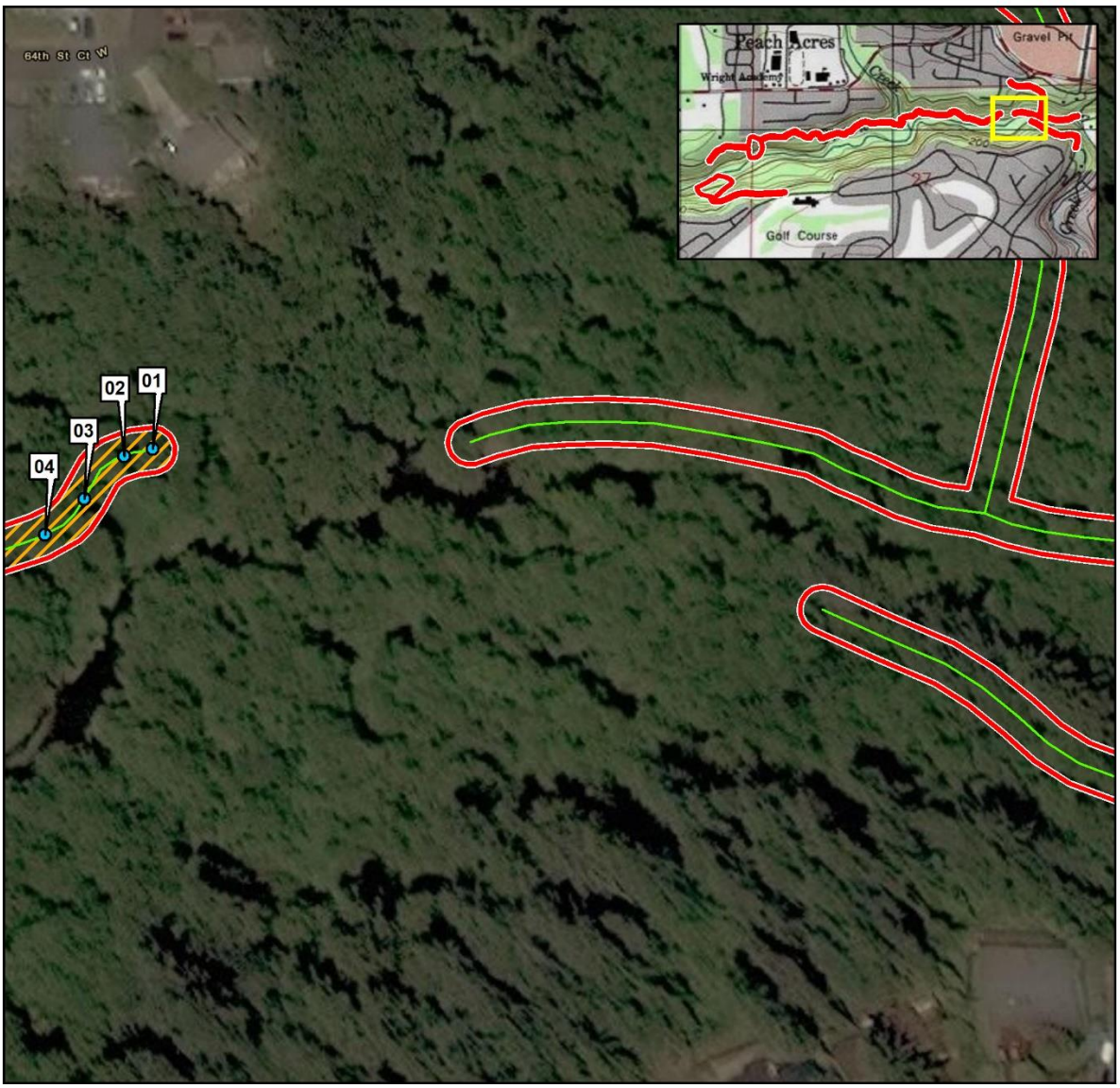

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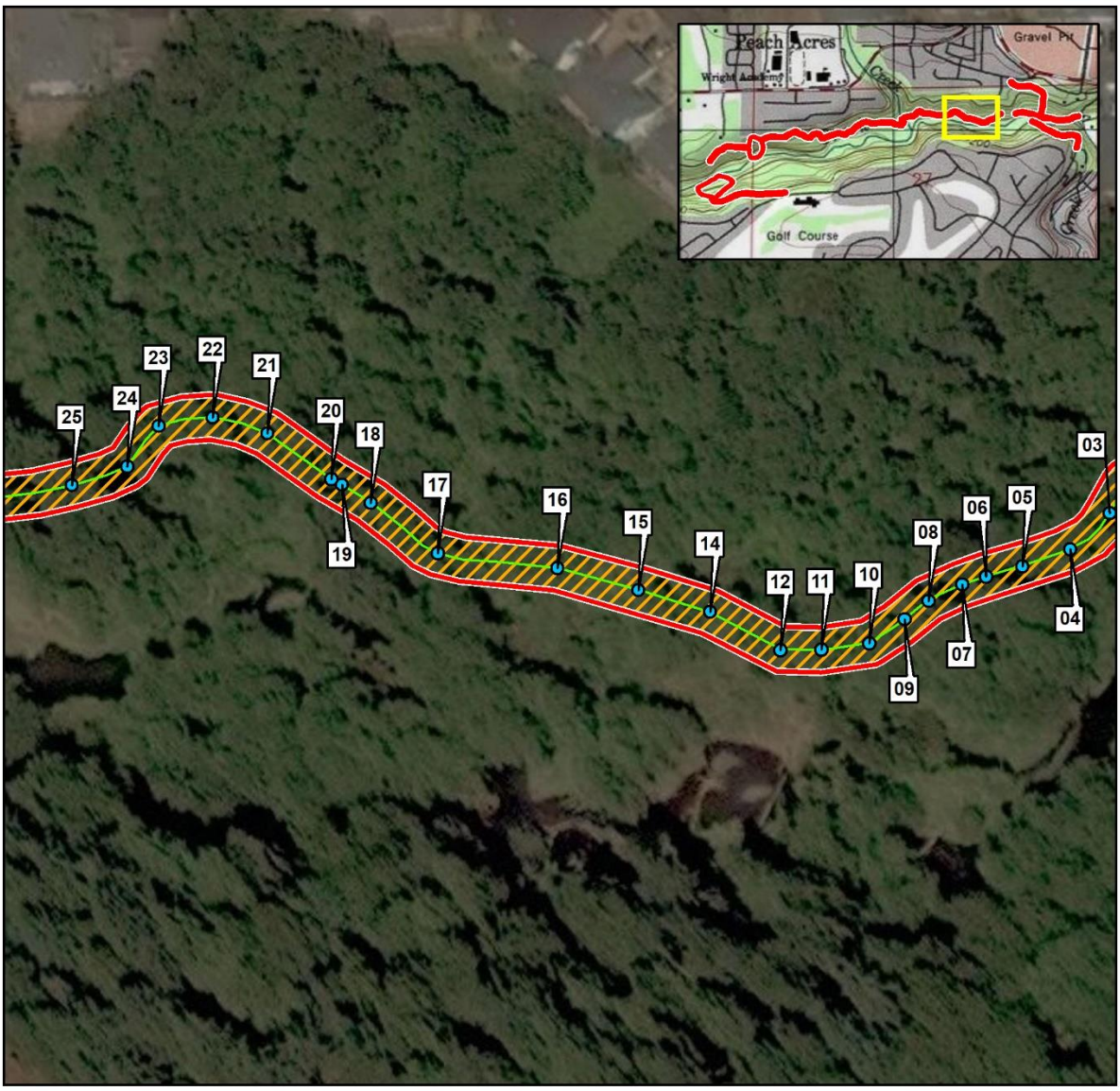

Chambers Creek Canyon Trail-Kobayashi Park Project Phase 3 Aerial Overview

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Date: 2/27/2020

Historical Research Associates, Inc.

Coord/Projection	Datum	Scale
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T20N R02E	Steilacoom, WA	

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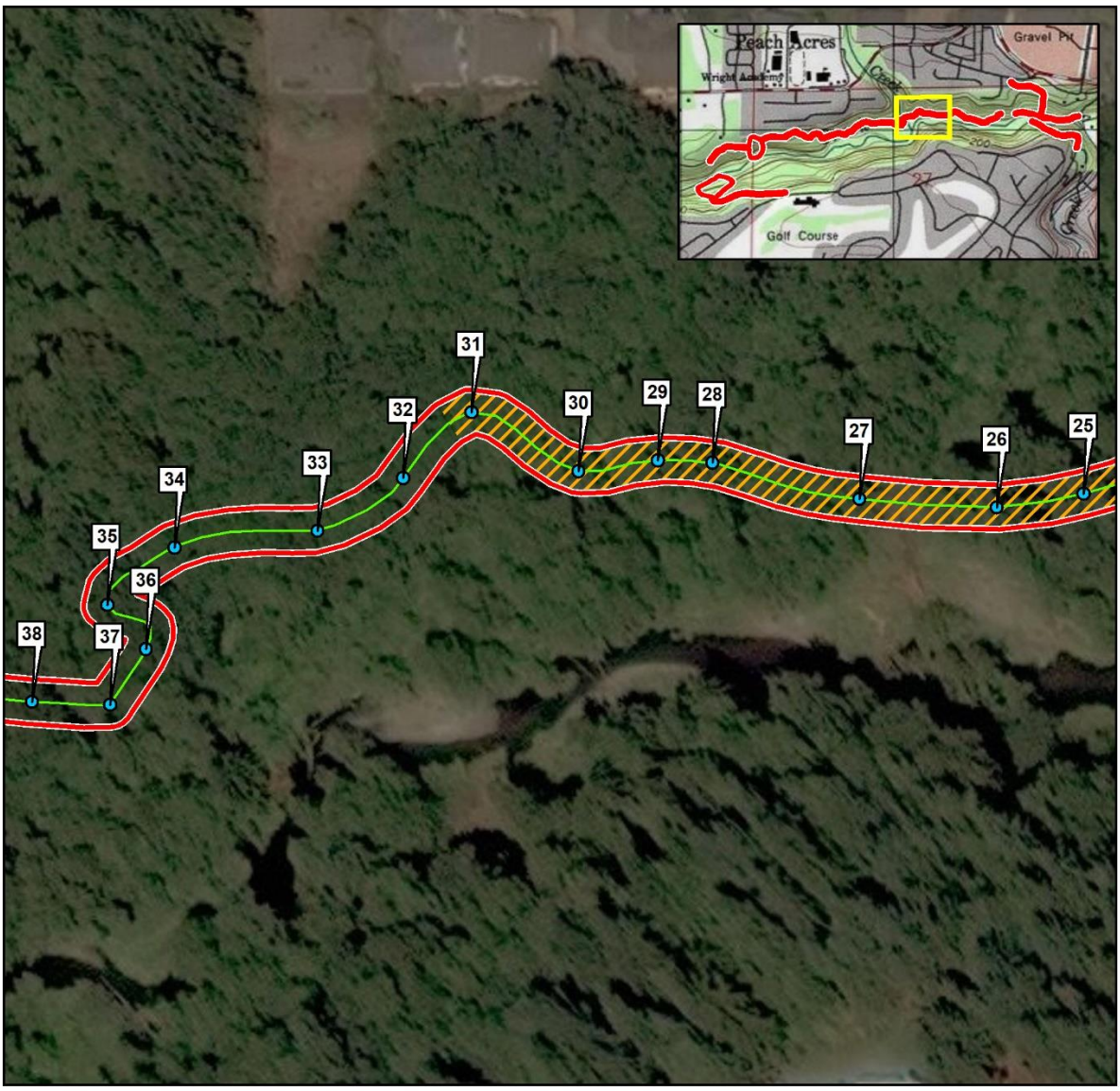

Chambers Creek Canyon Trail-Kobayashi Park Project Phase 3 Aerial Overview

Trail Points
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Area of Potential Effects (APE)
Area to be Shovel Probed

Date: 2/27/2020

Historical Research Associates, Inc.

Coord/Projection	Datum	Scale
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Township/Range: T20N R02E	Quadrangle: Steilacoom, WA	

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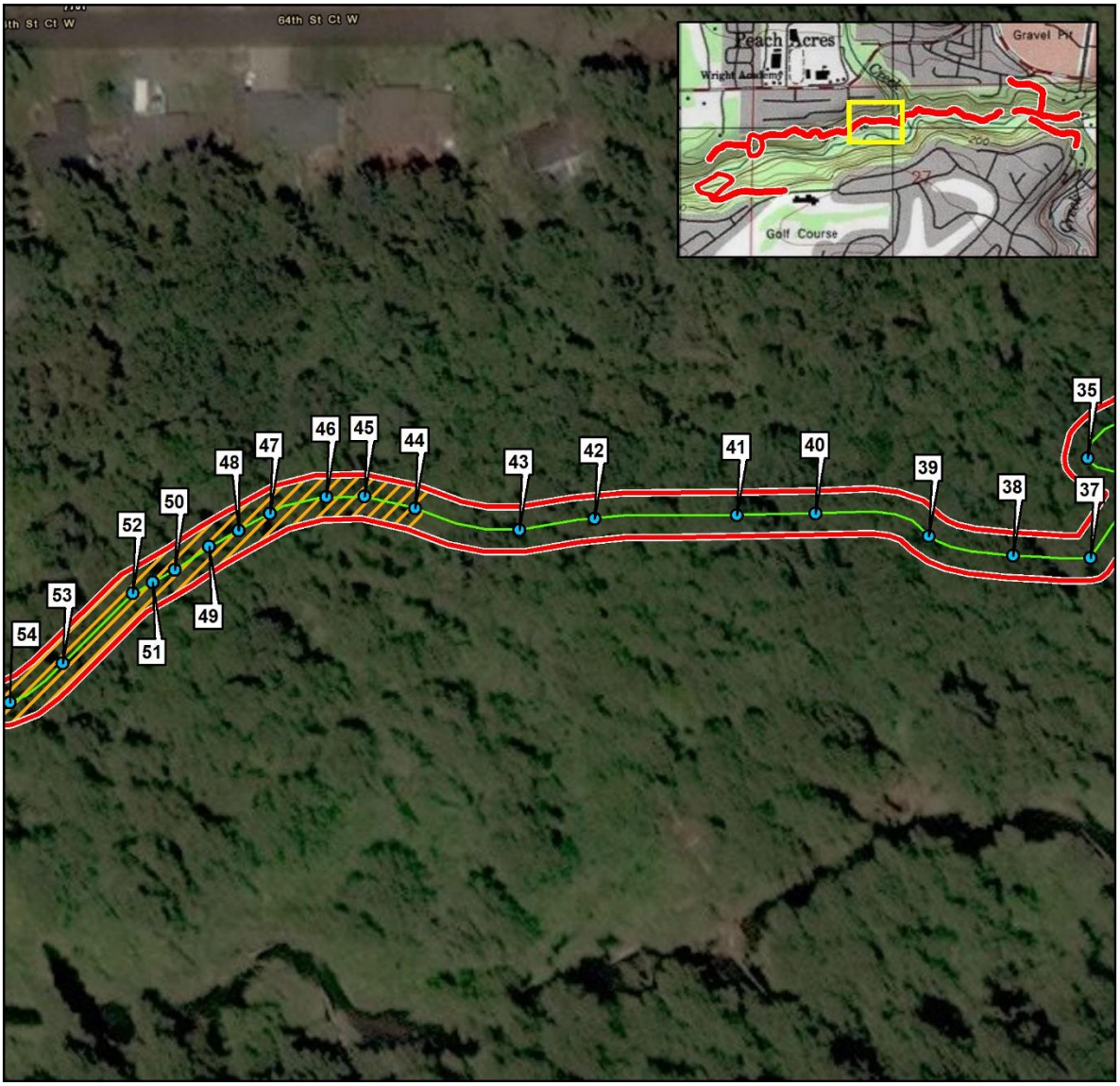
Historical Research Associates, Inc., Seattle, WA



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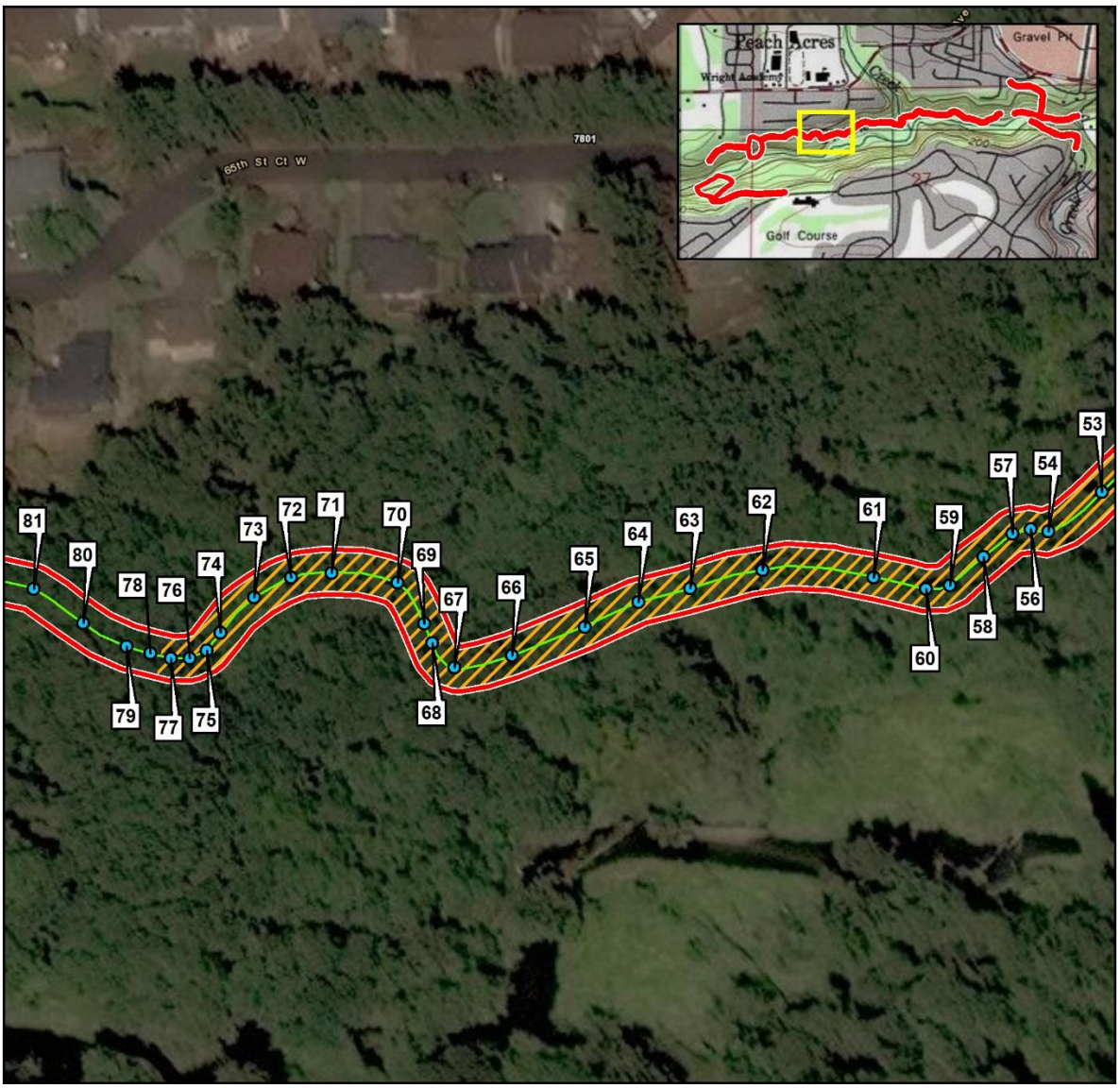
Historical Research Associates, Inc., Seattle, WA



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- Trail Points
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- Area of Potential Effects (APE)
- Area to be Shovel Probed

Date: 2/28/2020

Historical Research Associates, Inc.

Coord/Projection	Datum	Scale
NAD 1983 UTM Zone 10N Transverse Mercator	NAD83	1:1,500
Township/Range	**Quadrangle**	
T20N R02E	Steilacoom, WA	

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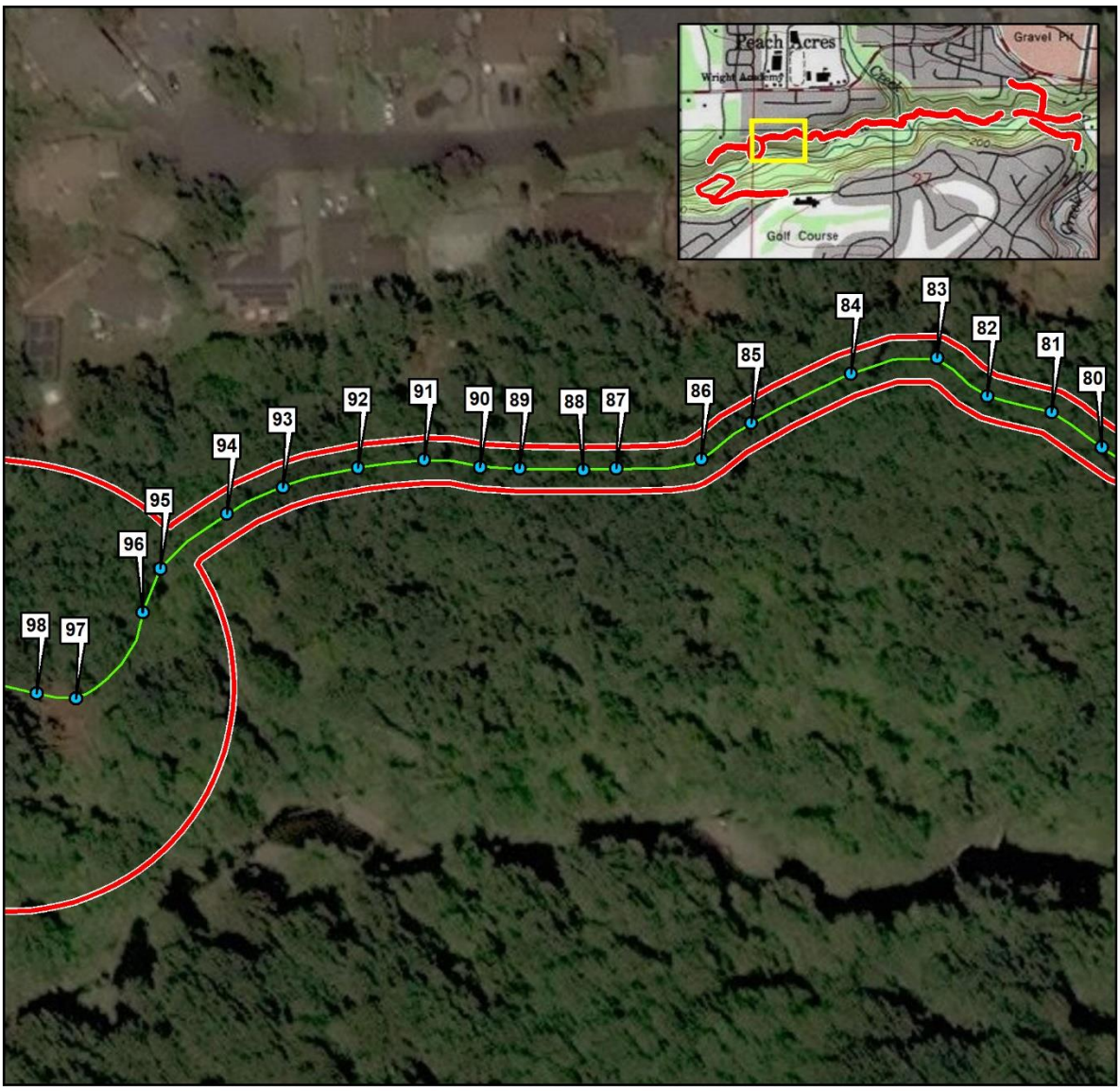

Chambers Creek Canyon Trail-Kobayashi Park Project Phase 3 Aerial Overview

Trail Points
Proposed Trail Alignment
Area of Potential Effects (APE)
Area to be Shovel Probed

Date: 2/27/2020

Historical Research Associates, Inc.

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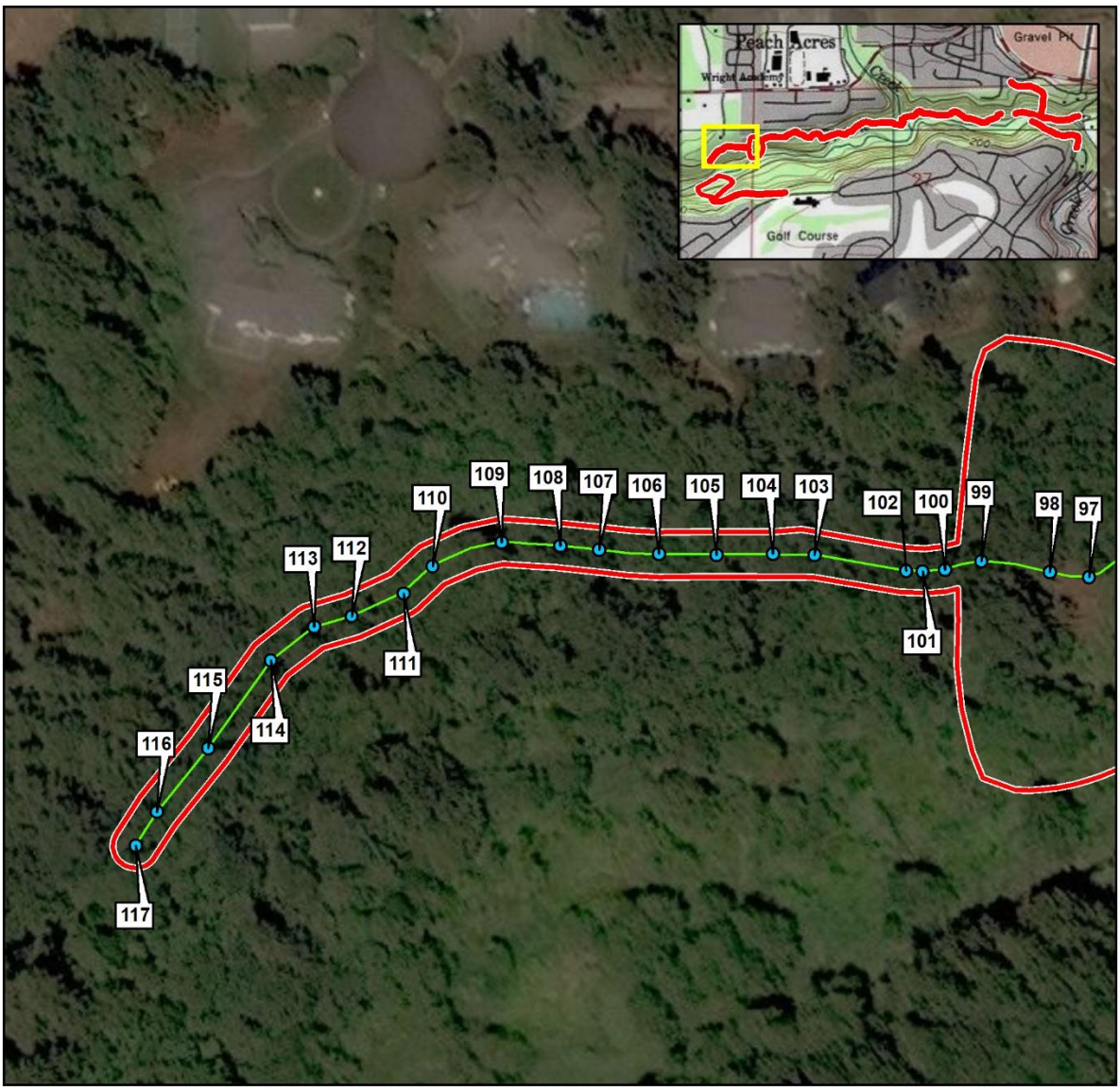

Chambers Creek Canyon Trail-Kobayashi Park Project Phase 3 Aerial Overview

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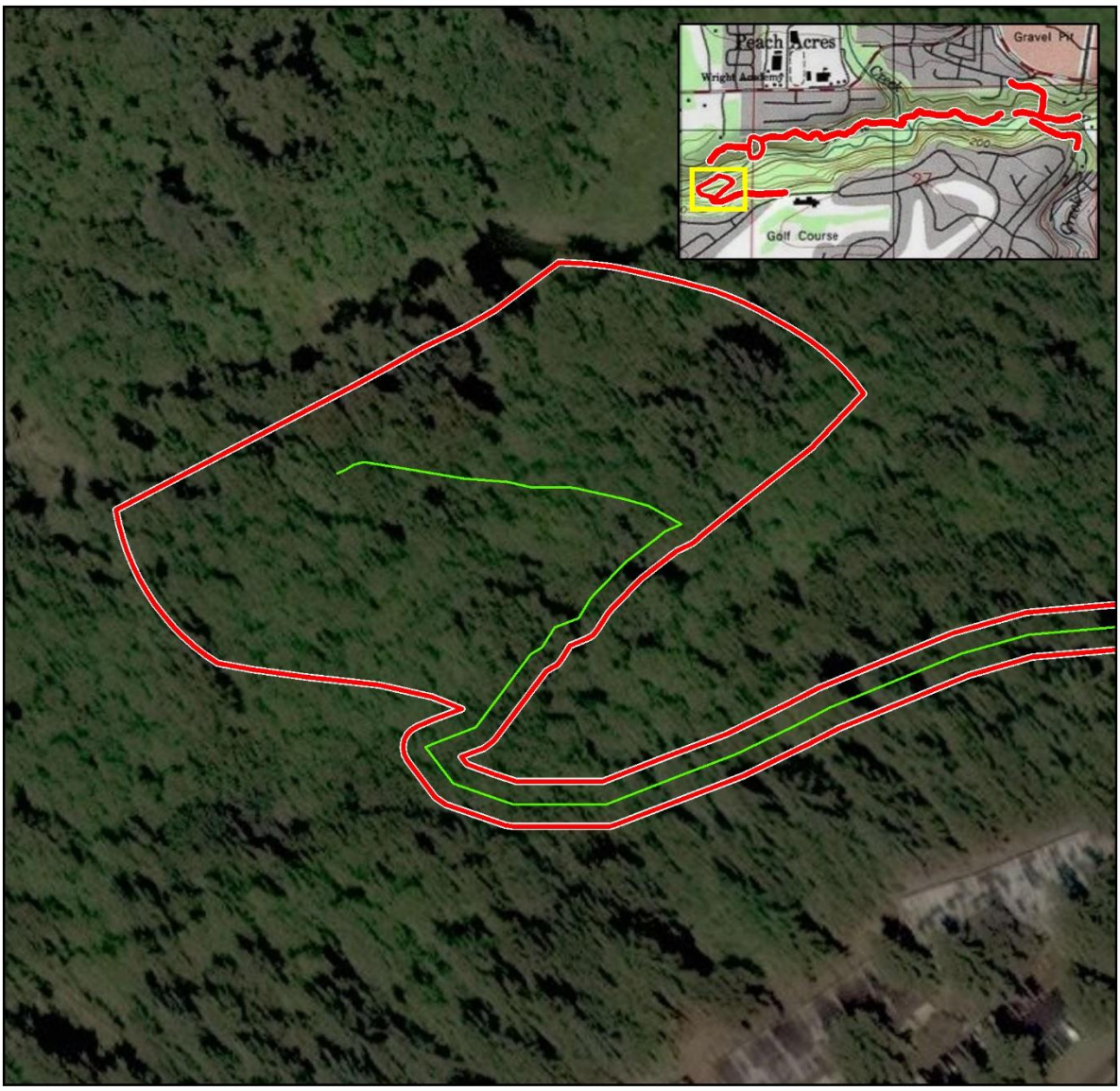

Chambers Creek Canyon Trail-Kobayashi Park Project Phase 3 Aerial Overview

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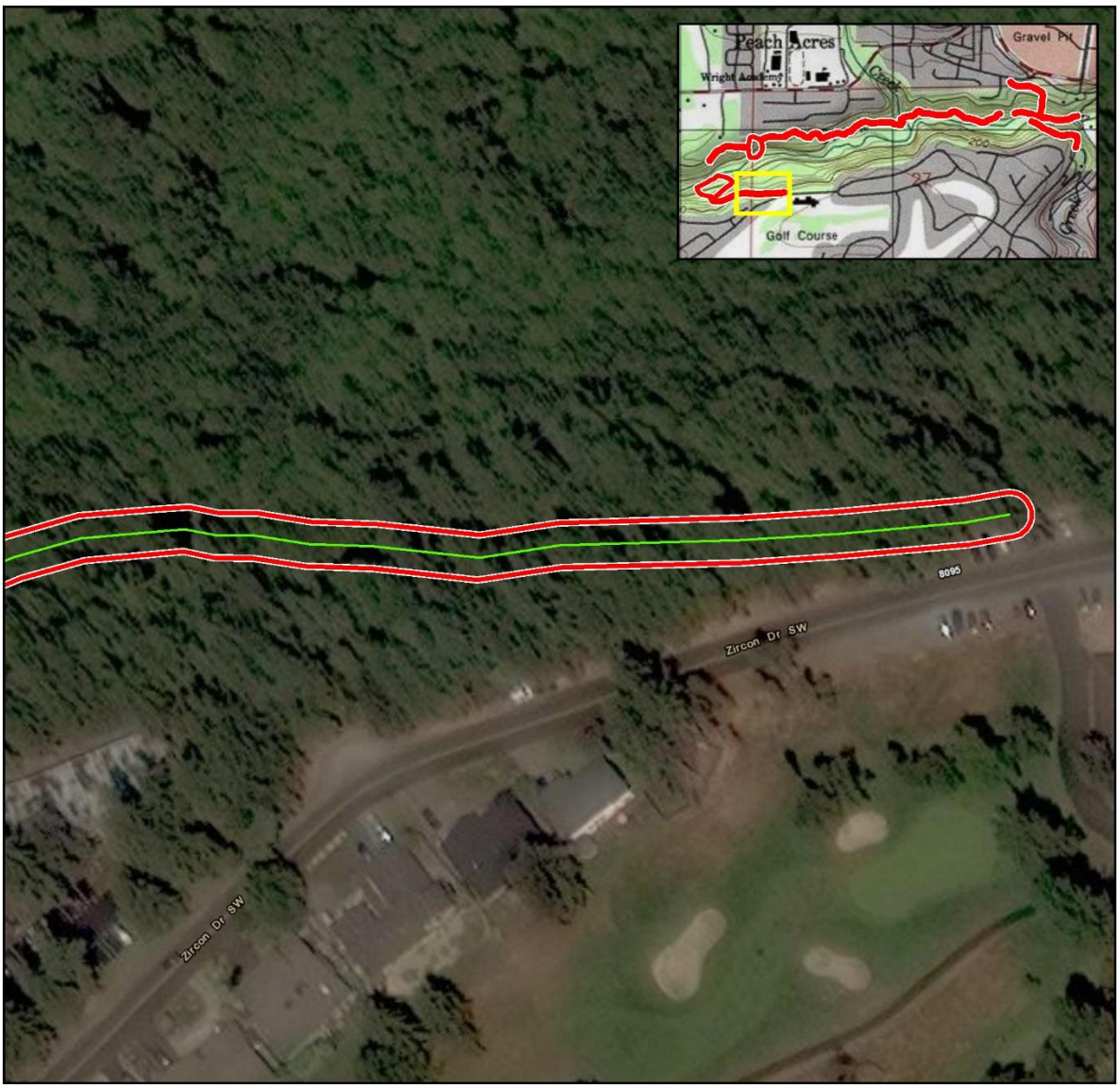

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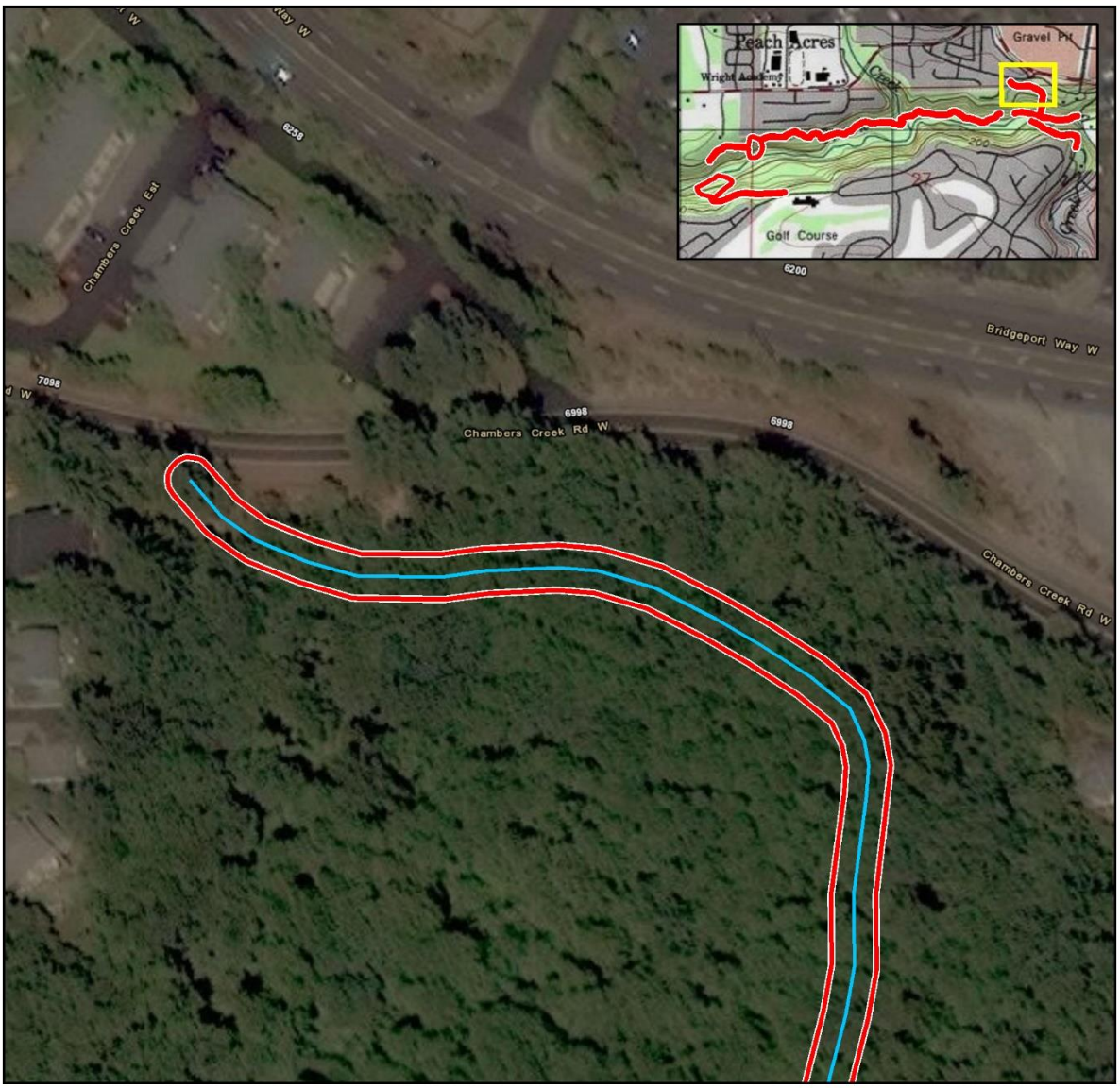
Appendix B: Survey Results Map



Chambers Creek Canyon Trail-Kobayashi Park Project Phase 3 Aerial Overview

- Shovel Probe (Negative)
- Survey Transect
- Area of Potential Effects (APE)
- Unsurveyed Area

Date: 2/28/2020

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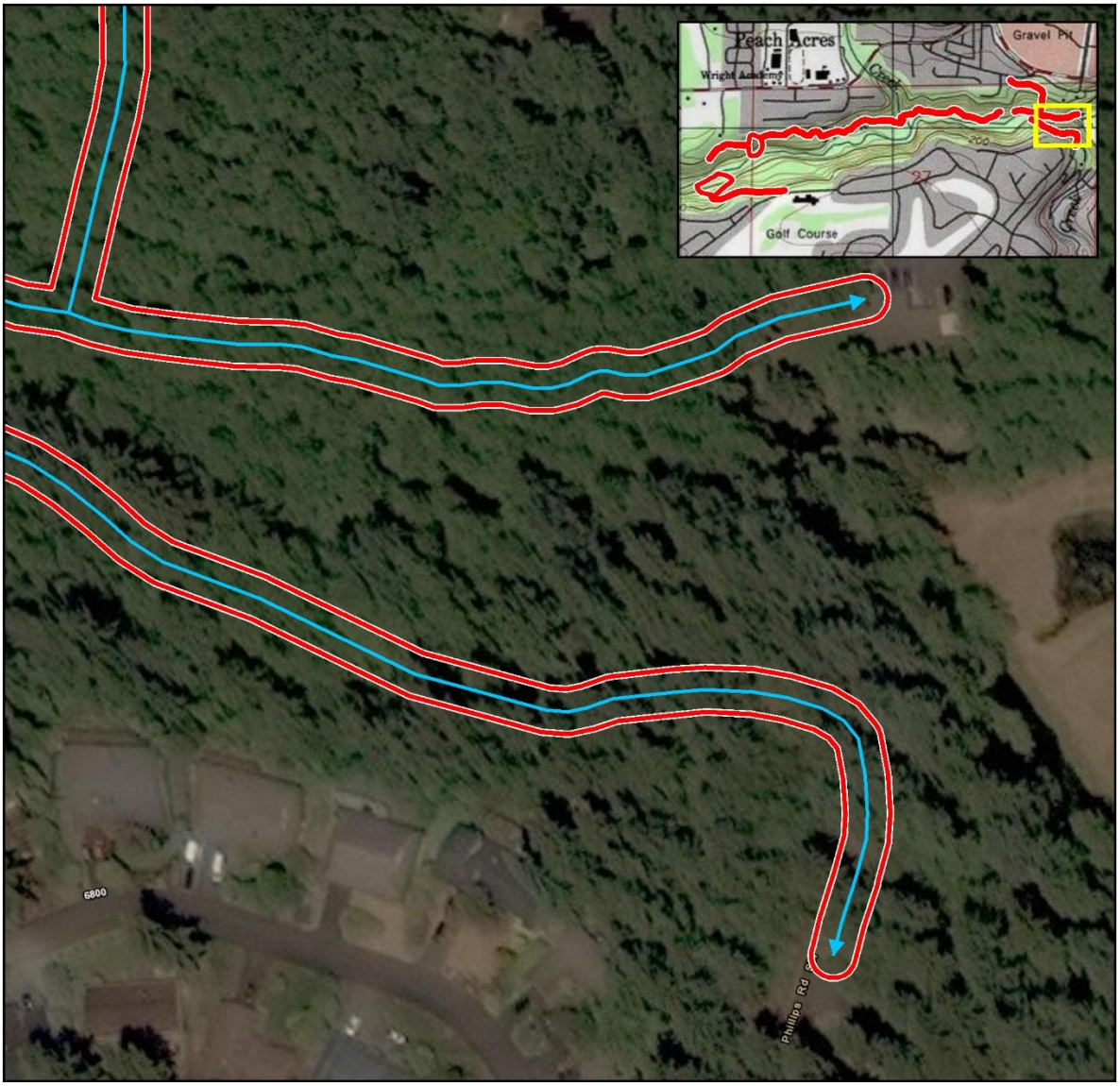

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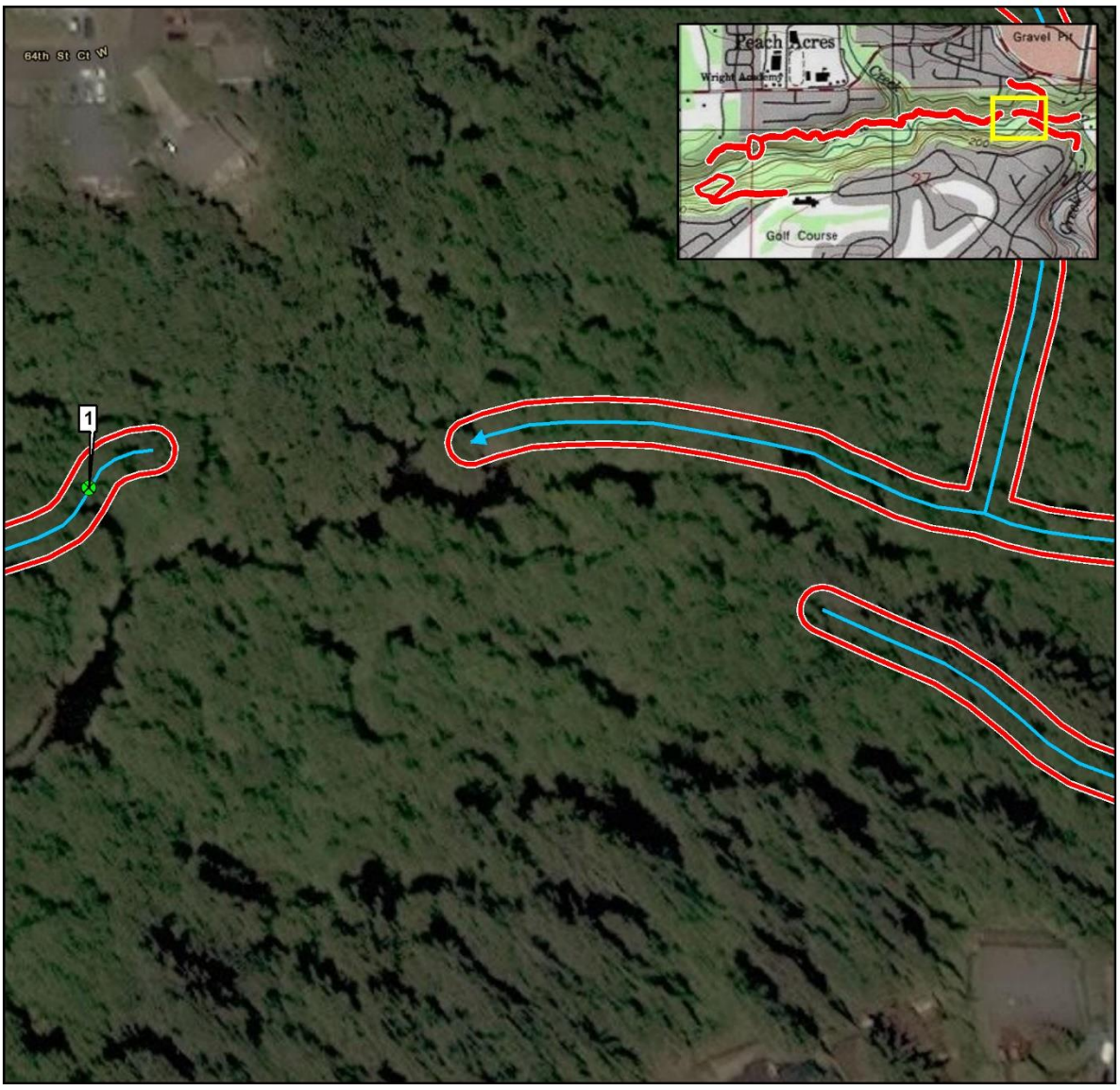

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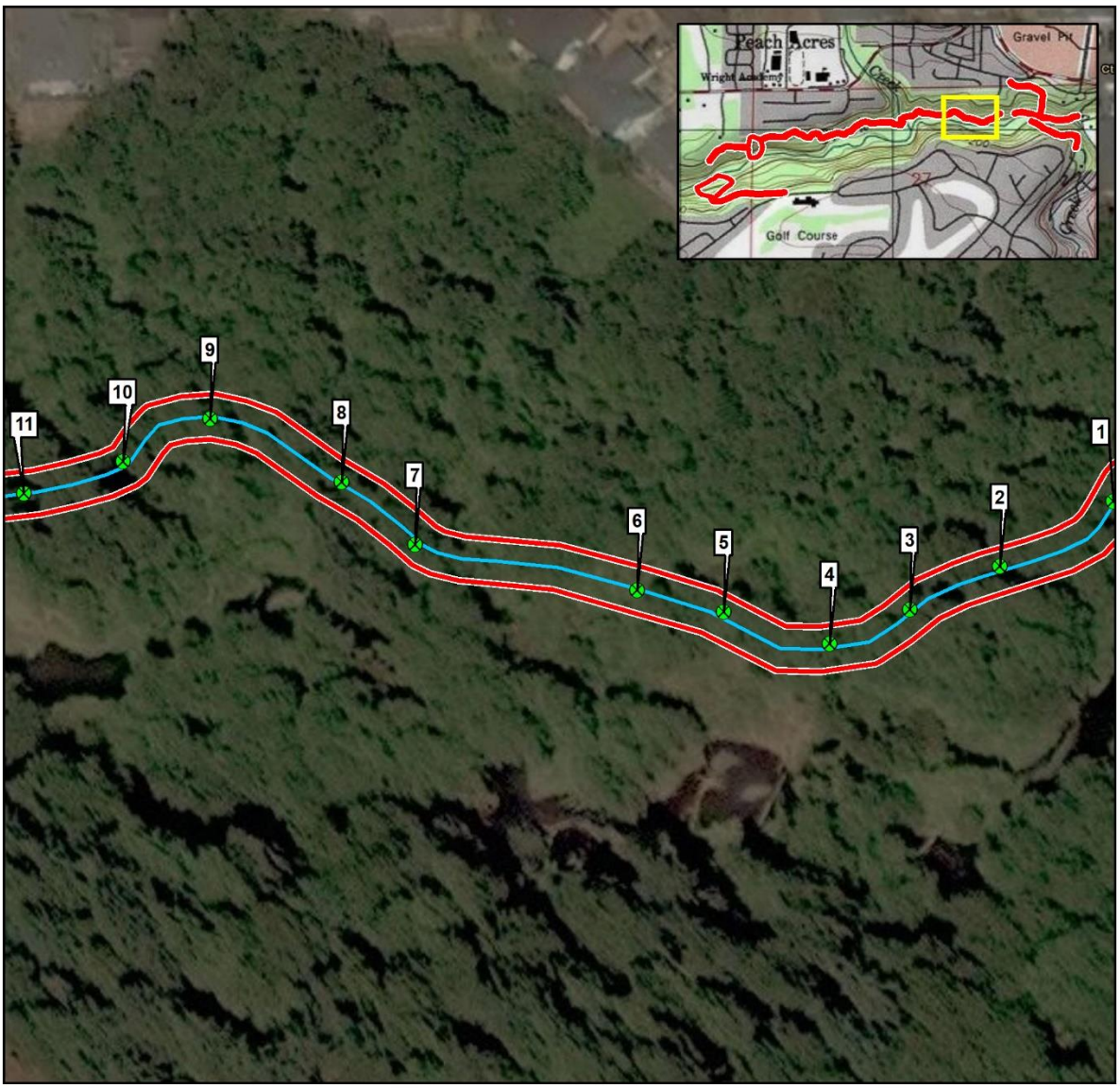

Chambers Creek Canyon Trail-Kobayashi Park Project Phase 3 Aerial Overview

Shovel Probe (Negative)
Survey Transect
Area of Potential Effects (APE)
Unsurveyed Area

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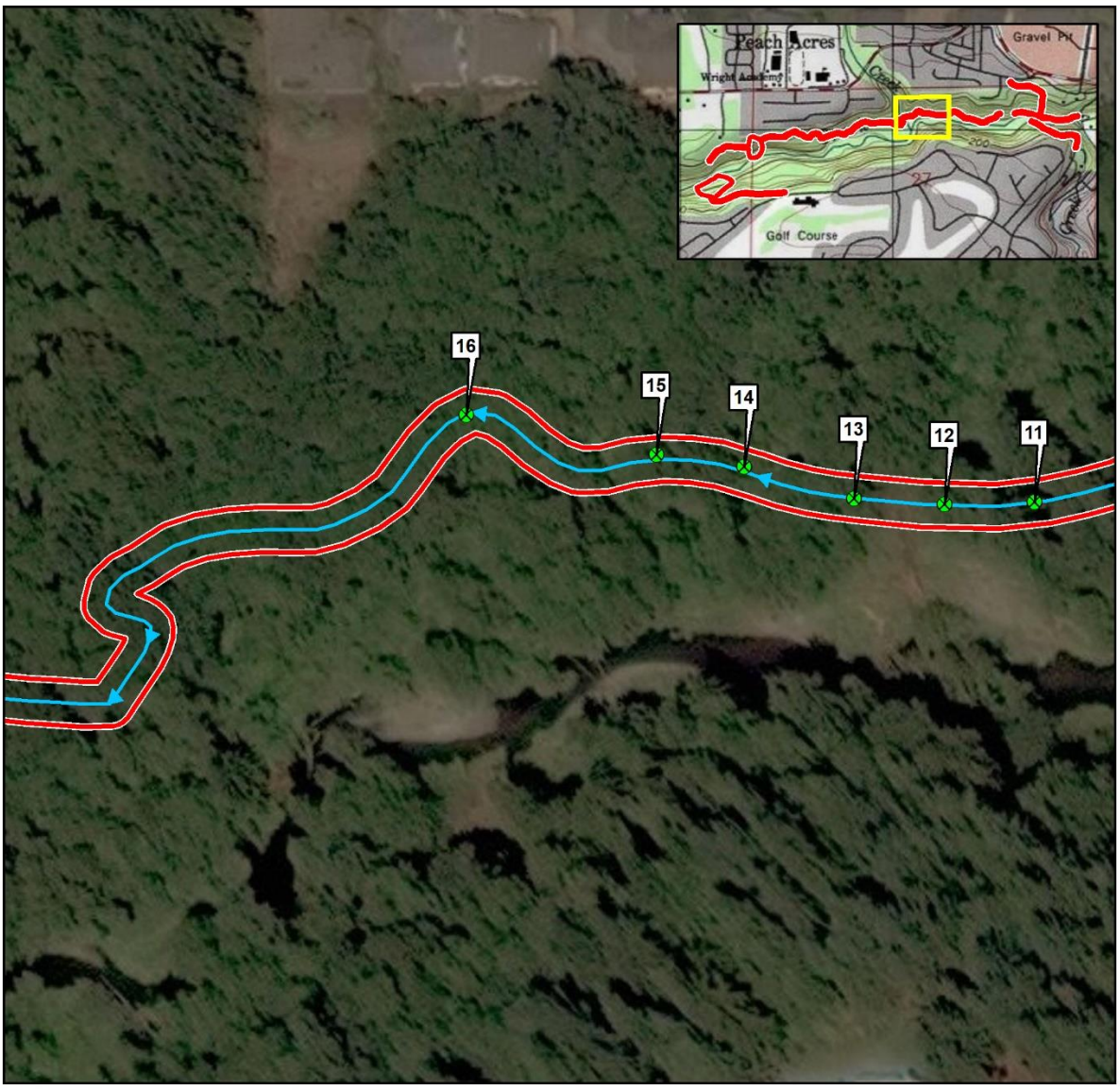

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Survey Transect

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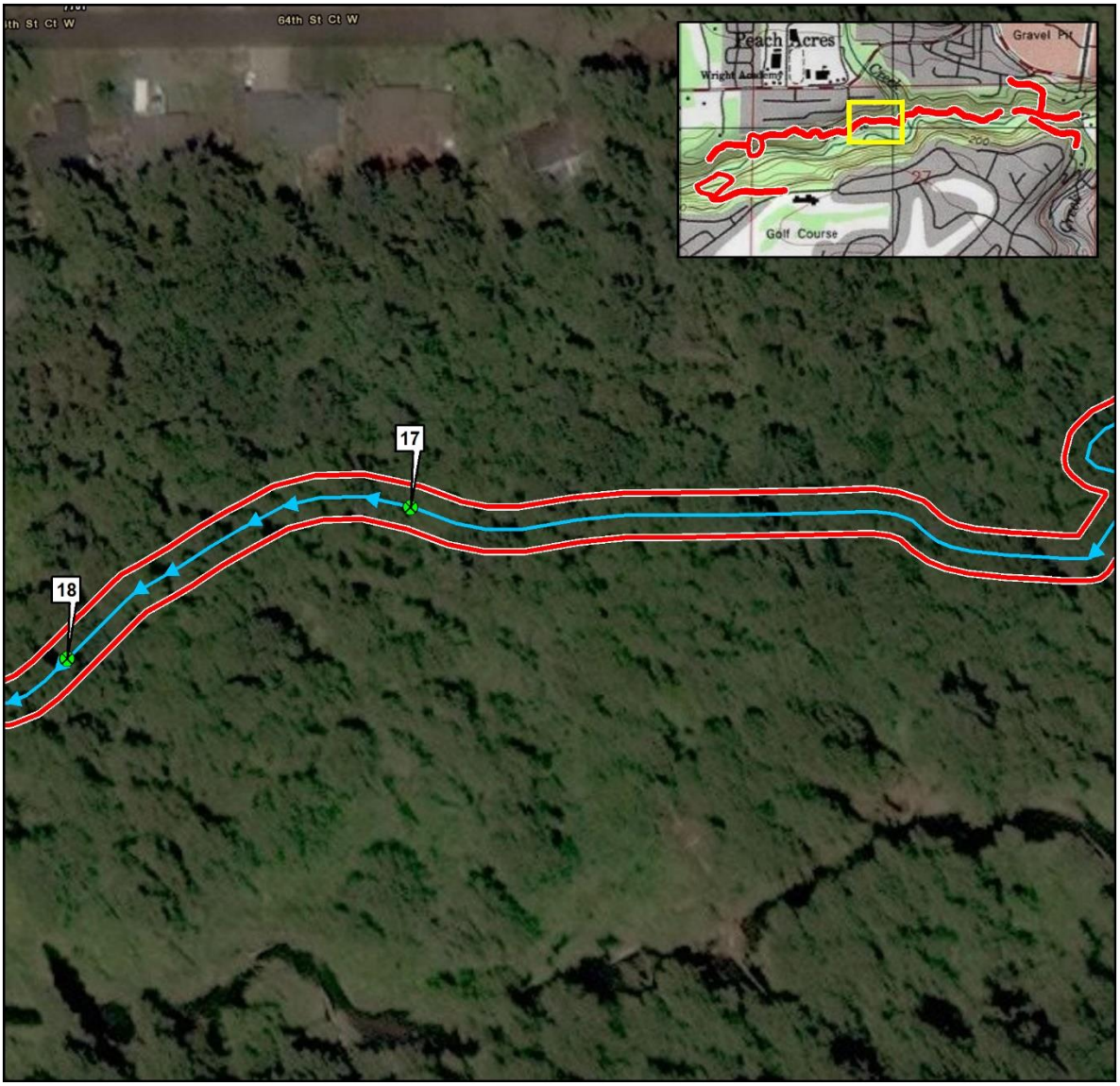

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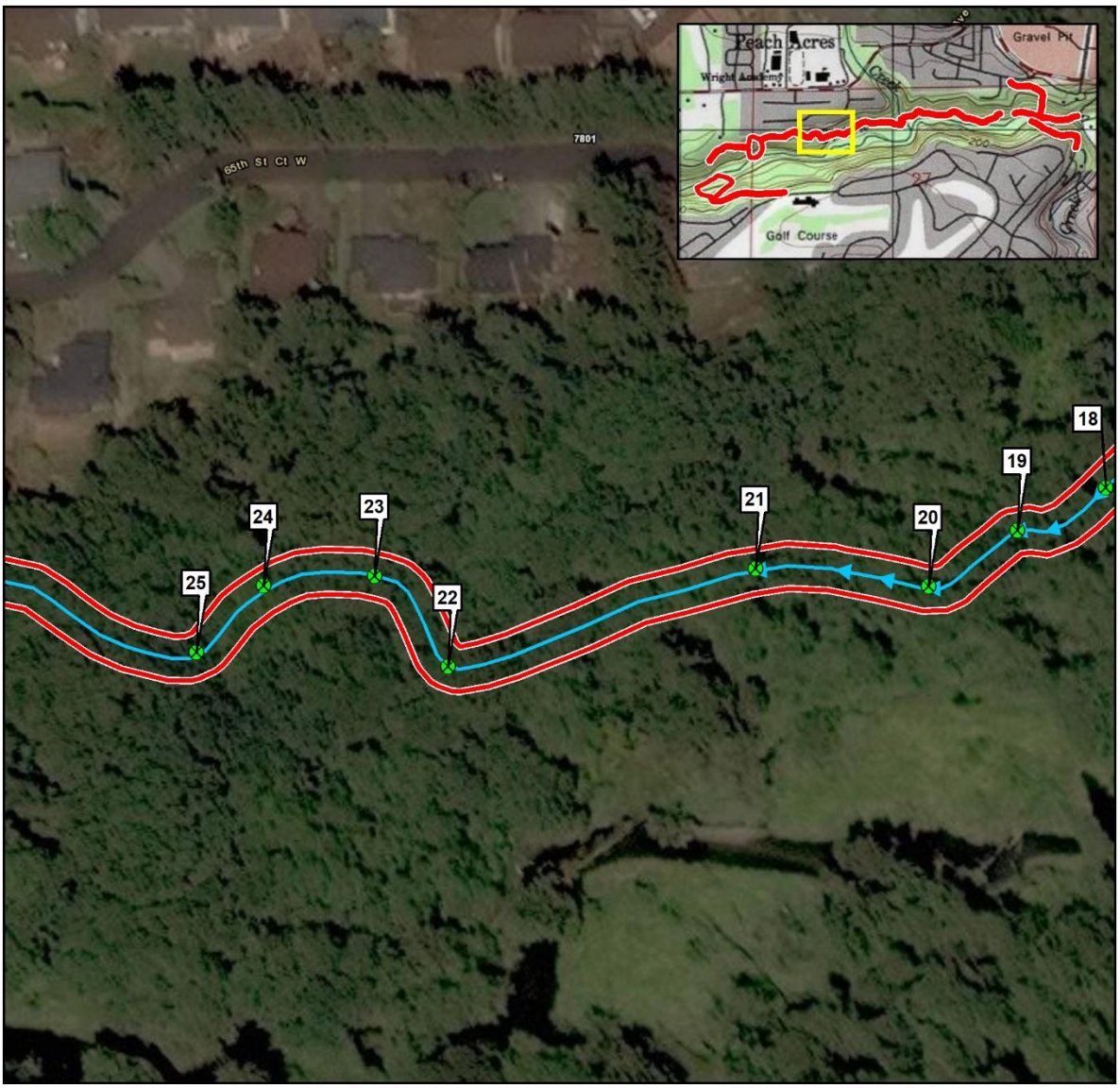

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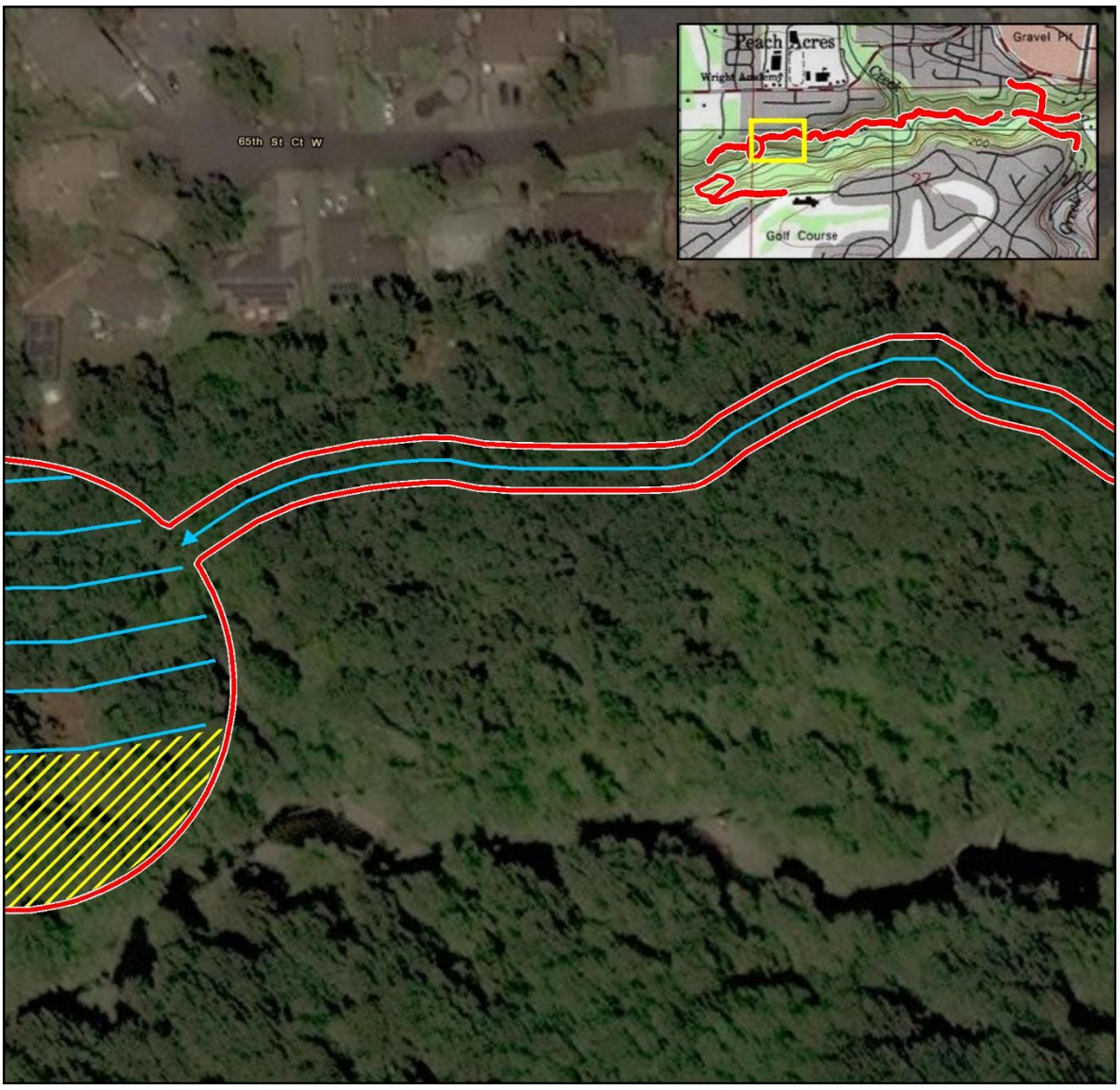

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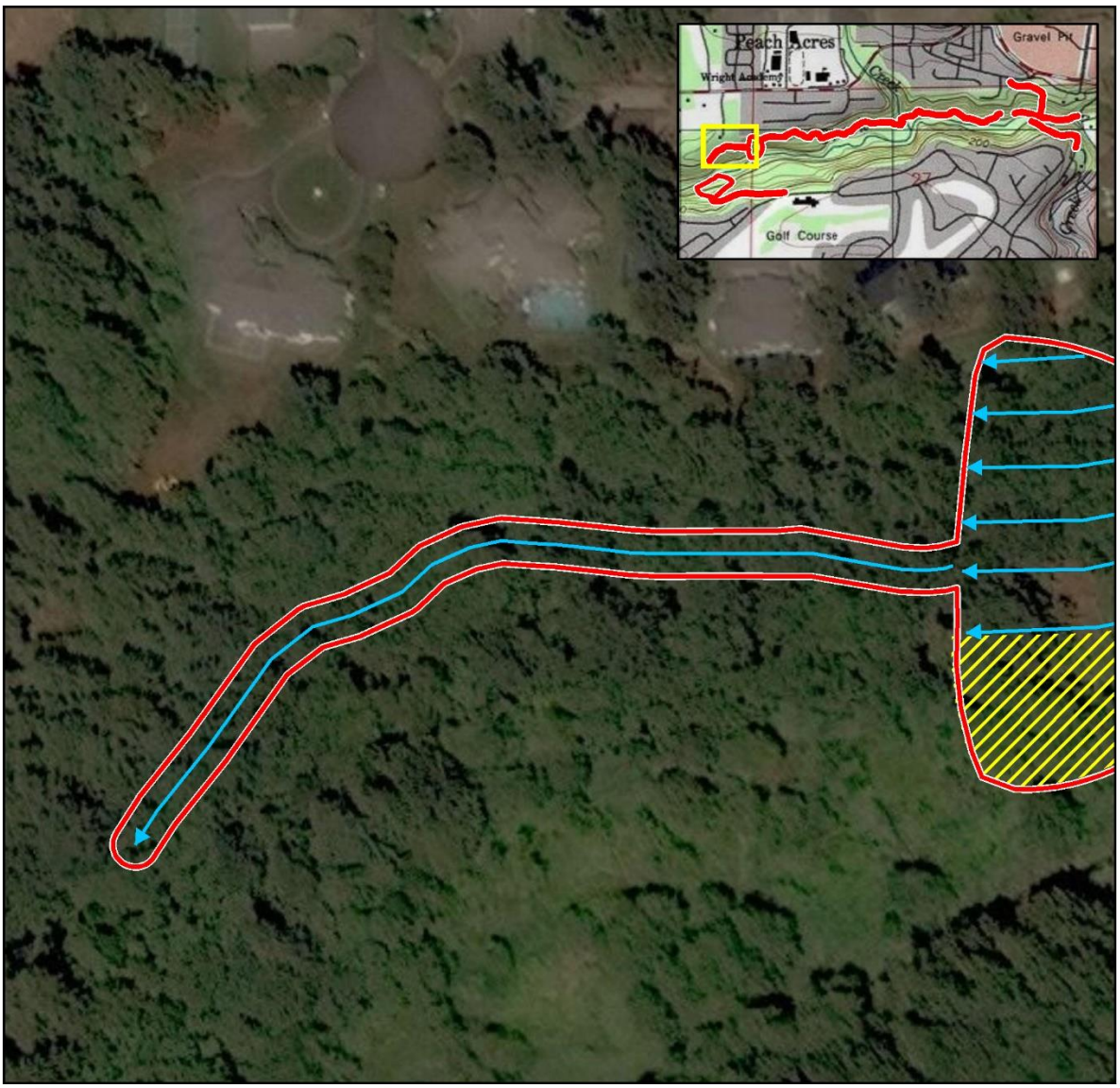

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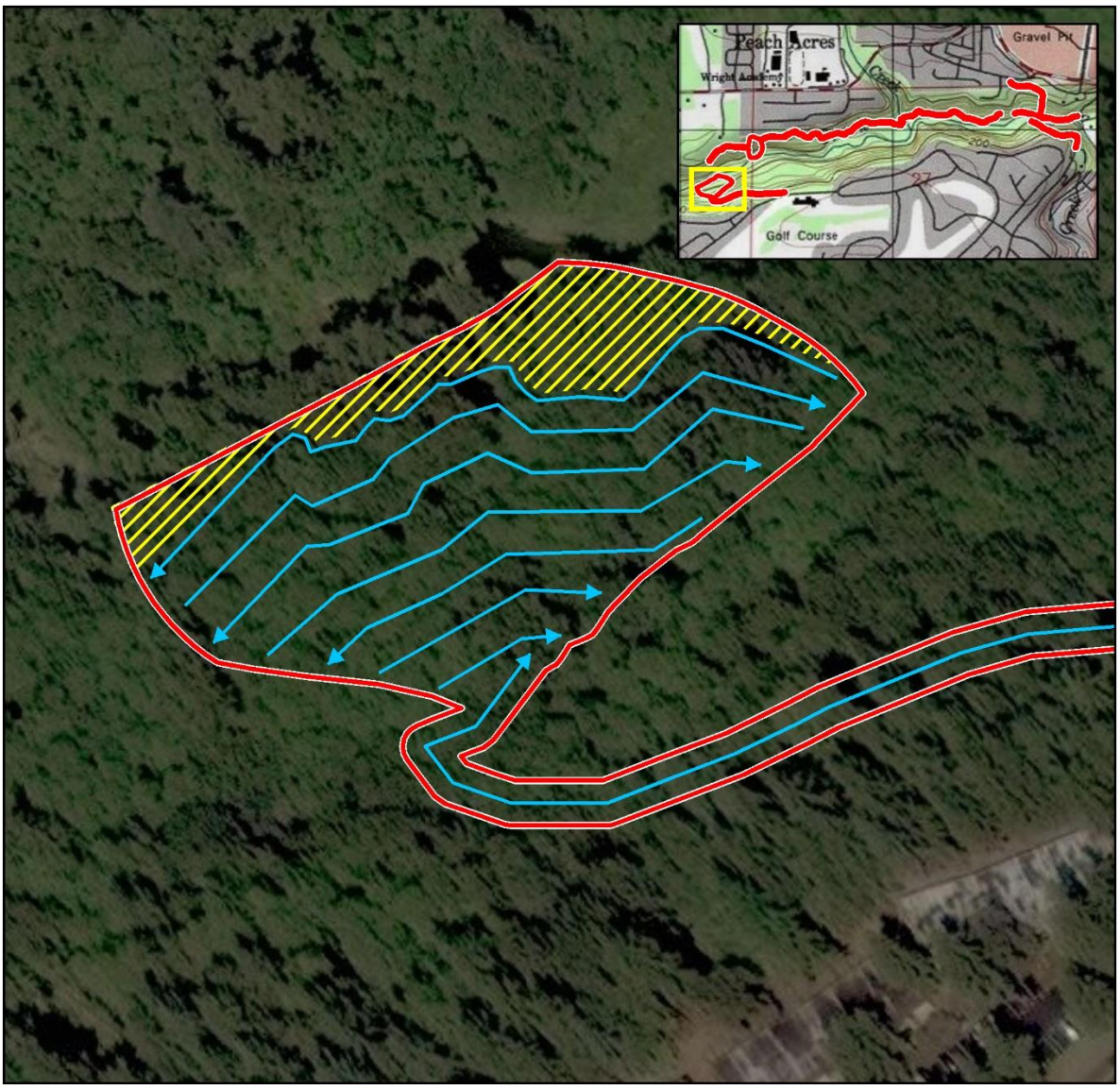

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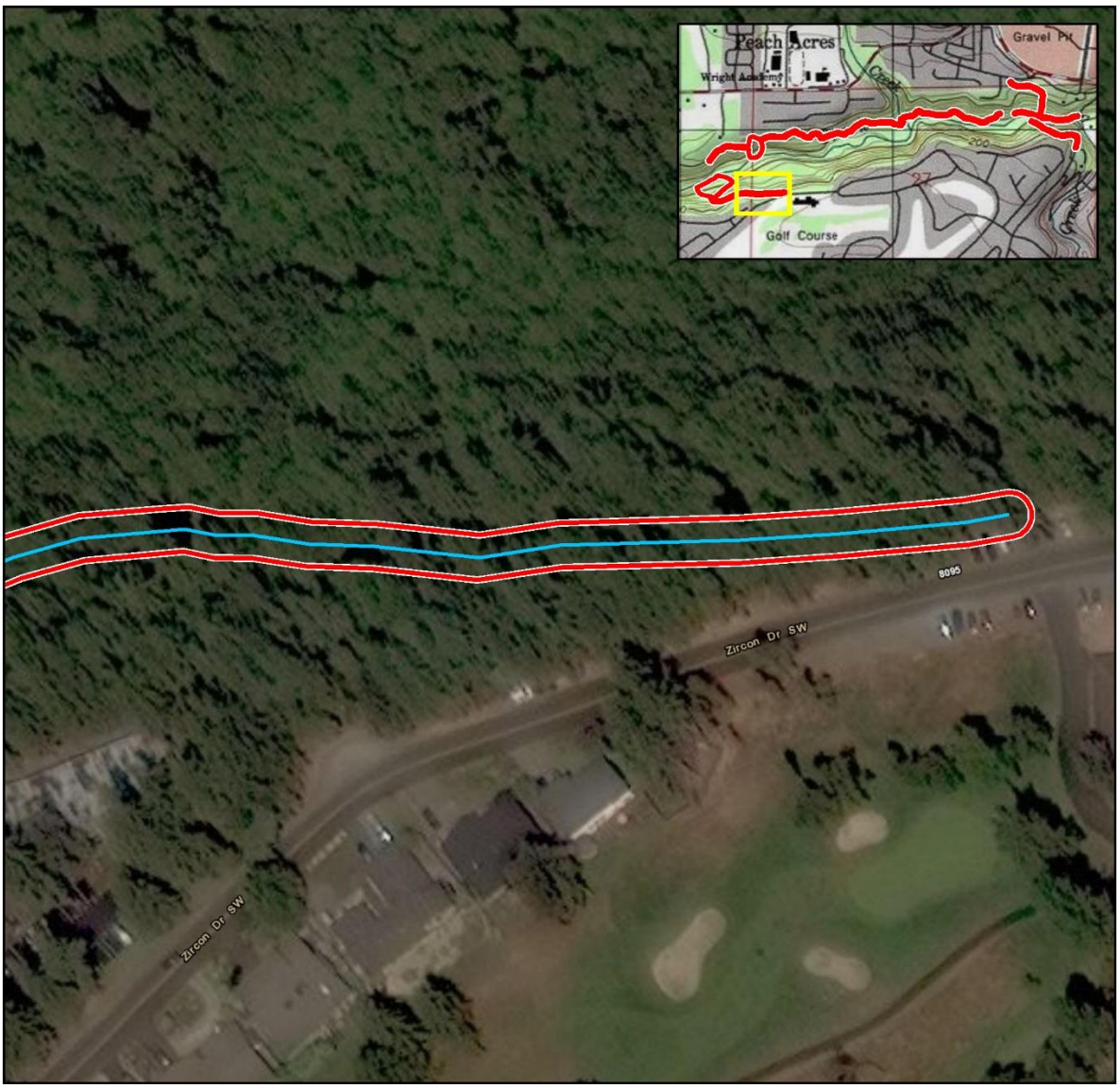

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